

**LAMPIRAN A**

**HASIL UJI MUTU FISIK GRANUL BAHAN KO-PROSES**

Formula	Replikasi	Carr's Index (%)	Persyaratan (%)	Hausner Ratio	Persyaratan
F1	I	24,20	21-25 = agak buruk (Hadisoewignyo dan Fudholi, 2013)	1,31	< 1,25 (Mathpati <i>et al</i> , 2012)
	II	23,50		1,29	
	III	22,30		1,3	
	Rata-rata	23,33		1,3	
	± SD	0,96		0,01	
F2	I	20,20	21-25 = agak buruk (Hadisoewignyo dan Fudholi, 2013)	1,25	< 1,25 (Mathpati <i>et al</i> , 2012)
	II	20,40		1,26	
	III	20,10		1,25	
	Rata-rata	20,23		1,25	
	± SD	0,15		0,01	
F3	I	21,00	21-25 = agak buruk (Hadisoewignyo dan Fudholi, 2013)	1,25	< 1,25 (Mathpati <i>et al</i> , 2012)
	II	23,10		1,3	
	III	22,80		1,31	
	Rata-rata	22,30		1,28	
	± SD	1,14		0,03	
F4	I	24,00	21-25 = agak buruk (Hadisoewignyo dan Fudholi, 2013)	1,31	< 1,25 (Mathpati <i>et al</i> , 2012)
	II	25,20		1,33	
	III	22,90		1,29	
	Rata-rata	24,03		1,31	
	± SD	1,15		0,02	
F5	I	20,00	21-25 = agak buruk (Hadisoewignyo dan Fudholi, 2013)	1,25	< 1,25 (Mathpati <i>et al</i> , 2012)
	II	20,00		1,25	
	III	20,80		1,26	
	Rata-rata	20,27		1,25	
	± SD	0,46		0,01	
F6	I	19,80	21-25 = agak buruk (Hadisoewignyo dan Fudholi, 2013)	1,24	< 1,25 (Mathpati <i>et al</i> , 2012)
	II	22,10		1,28	
	III	18,20		1,22	
	Rata-rata	20,03		1,24	
	± SD	1,96		0,03	
F7	I	23,90	21-25 = agak buruk (Hadisoewignyo dan Fudholi, 2013)	1,31	< 1,25 (Mathpati <i>et al</i> , 2012)
	II	25,00		1,33	
	III	21,00		1,26	
	Rata-rata	23,30		1,3	
	± SD	2,07		0,036	
F8	I	19,00	21-25 = agak buruk (Hadisoewignyo dan Fudholi, 2013)	1,23	< 1,25 (Mathpati <i>et al</i> , 2012)
	II	22,00		1,28	
	III	21,00		1,26	
	Rata-rata	20,67		1,25	
	± SD	1,53		0,02	

### Hasil Uji Kelembapan

Formula	Kelembapan (%)								Persyaratan
	F1	F2	F3	F4	F5	F6	F7	F8	
Replikasi I	2,56	2,65	3,58	2,89	2,77	2,65	1,98	2,65	2 -5% (Ansel, 1989)
Replikasi II	2,85	2,87	2,69	2,48	1,56	2,98	2,87	2,97	
Replikasi III	2,96	2,21	2,89	2,47	2,69	1,98	2,69	2,69	
Rata-rata	2,79	2,57	3,05	2,61	2,34	2,53	2,51	2,77	
±	±	±	±	±	±	±	±	±	
SD	0,20	0,33	0,46	0,23	0,67	0,50	0,47	0,17	

**LAMPIRAN B**  
**HASIL UJI KEKERASAN TABLET KO-PROSES**

**REPLIKASI I**

No	Kekerasan Tablet Ko-proses (Kp)							
	F1	F2	F3	F4	F5	F6	F7	F8
1	2,3	3,9	1,4	2,9	2,5	3,2	2,3	3,2
2	2,6	2,9	5,3	3,3	2,2	3,3	2,1	3,4
3	2,2	4,1	3	2,7	2,2	3,7	1,9	3,6
4	4	1,4	5,7	3,6	2,2	3,4	1,8	3,6
5	1,8	3,6	4	4	2	3,8	2,2	3,5
6	2,9	4,8	4,7	2,8	4	4,2	2,1	3,8
7	3,7	3,8	2,9	3,2	4,5	4,2	2,5	3,7
8	2,3	5,4	4,6	3,1	5	4,1	2,8	3,9
9	2,9	6,5	3,6	4	2,4	4,2	2,6	3,6
10	3,1	1,6	4,4	2,6	3,5	5,3	3,1	5
Rata-rata	2,78	3,8	3,96	3,22	3,05	3,94	2,34	3,73
± SD	0,69	1,57	1,27	0,50	1,10	0,61	0,40	0,48
KV	24,73	41,51	32,27	15,75	36,25	15,60	17,46	13,076

## REPLIKASI II

No	Kekerasan Tablet Ko-proses (Kp)							
	F1	F2	F3	F4	F5	F6	F7	F8
1	3	3,5	1,8	2,3	2,2	5,2	1,7	2,7
2	3,3	5	1,7	1,9	3,4	3,3	1,6	2,6
3	3,5	4,3	1,6	2,4	2	2,5	1,9	2,4
4	3,6	3,3	3,1	2,4	2,8	1,7	1,6	1,7
5	3,3	3,7	3	1,7	3,3	2,8	3,3	4,2
6	3,3	3,9	2,2	2,2	3,3	4,6	3	3,3
7	4,4	5	3,2	2,5	4,1	4,6	3,1	3,6
8	3,3	4,2	2,8	1,8	1,7	4,2	2,8	3,7
9	1,9	1,1	2,2	1,6	2	1,5	2,9	5
10	3,2	1,3	2,7	2,7	3,9	1,9	1,9	3,6
Rata-rata	3,28	3,53	2,43	2,15	2,87	3,23	2,38	3,28
± SD	0,61	1,35	0,60	0,37	0,85	1,34	0,69	0,95
KV		38,3	24,9	17,4	29,7	41,7	29,1	29,2
	18,72	1	2	3	4	9	6	0

## REPLIKASI III

No	Kekerasan Tablet Ko-proses (Kp)							
	F1	F2	F3	F4	F5	F6	F7	F8
1	2,3	3,6	3,6	2,5	2,8	3,1	1,9	2,5
2	3	2,2	2,2	2,5	3,5	2,5	2,1	2,1
3	3,2	2,7	2,7	2,1	2	3	1,7	3,9
4	3,5	2,4	2,4	3,3	3,3	3,2	2,3	2,8
5	3,7	2,9	2,9	1,8	2,9	2,3	2,2	3,1
6	3,6	3,3	3,3	2,9	3,2	3,1	2,1	2,8
7	3,3	1,6	1,6	2,5	4,1	2,2	2,7	3,1
8	2,4	5,9	5,9	3,1	4,2	2,9	2,4	3,4
9	3,9	1,9	1,9	2,5	3,1	2,8	2,1	3,3
10	3,6	2,2	2,2	3,3	2,5	4	2	3,4
Rata-rata	3,25	2,87	2,87	2,65	3,16	2,91	2,15	3,04
± SD	0,54	1,2	1,22	0,49	0,67	0,51	0,27	0,51
KV	16,6	42,8	42,8	18,7	21,3	17,7	12,8	16,8
	1	3	3	6	1	7	3	5

**LAMPIRAN C**  
**HASIL UJI KERAPUHAN TABLET KO-PROSES**

Formula	Replikasi	Berat awal (gram)	Berat akhir (gram)	Kerapuhan (%)	Rata-rata ± SD	KV
F1	I	1,7894	1,7783	0,62	0,13	26,95
	II	1,8716	1,8649	0,35	±	
	III	1,9076	1,8984	0,48	0,48	
F2	I	1,8707	1,8616	0,48	0,36	28,14
	II	1,9525	1,9467	0,29	±	
	III	1,9722	1,9659	0,31	0,10	
F3	I	1,8514	1,8501	0,07	0,21	58,82
	II	1,8731	1,8677	0,28	±	
	III	1,8157	1,8103	0,29	0,12	
F4	I	1,8826	1,8726	0,53	0,45	17,40
	II	2,088	2,0802	0,37	±	
	III	1,9629	1,954	0,45	0,07	
F5	I	1,9877	1,98	0,38	0,41	23,16
	II	1,9081	1,8981	0,52	±	
	III	1,9831	1,9764	0,33	0,09	
F6	I	1,9433	1,9425	0,04	0,31	84,54
	II	1,8152	1,8093	0,32	±	
	III	1,9612	1,9501	0,56	0,26	
F7	I	1,9073	1,8987	0,45	0,26	72,50
	II	2,0018	1,9963	0,27	±	
	III	1,9175	1,9162	0,06	0,19	
F8	I	1,9289	1,9228	0,31	0,31	35,37
	II	1,8924	1,8885	0,20	±	
	III	1,9263	1,918	0,43	0,11	

**LAMPIRAN D**  
**HASIL UJI WAKTU HANCUR TABLET KO-PROSES**

**REPLIKASI I**

No	Waktu Hancur Tablet Ko-proses (detik)							
	F1	F2	F3	F4	F5	F6	F7	F8
1	102	168	70	150	37	140	109	124
2	72	92	49	143	38	122	128	171
3	97	95	65	116	40	128	112	102
4	100	80	63	103	41	155	77	133
5	90	130	67	100	40	131	72	152
Rata-rata	92,2	113	62,8	122,4	39,2	135,2	99,6	136,4
± SD	12,1	35,9	8,1	22,9	1,64	12,8	24,1	26,4
KV	13,1	31,7	12,9	10,1	4,18	9,46	24,19	19,35

**REPLIKASI II**

No	Waktu Hancur Tablet Ko-proses (detik)							
	F1	F2	F3	F4	F5	F6	F7	F8
1	40	136	98	50	106	145	65	118
2	61	119	87	55	134	152	47	152
3	58	86	68	49	108	135	39	102
4	70	135	58	56	114	122	48	126
5	45	108	65	45	130	172	52	133
Rata-rata	54,8	116,8	75,2	51	118,4	145,2	50,2	126,2
± SD	12,1	20,8	16,6	4,5	12,8	18,7	9,5	18,4
KV	22,1	17,8	22,07	8,8	10,8	12,8	18,9	14,5

### REPLIKASI III

No	Waktu Hancur Tablet Ko-proses (detik)							
	F1	F2	F3	F4	F5	F6	F7	F8
1	170	80	43	74	66	157	72	163
2	178	61	57	80	80	135	88	128
3	140	75	34	66	63	160	97	146
4	160	65	44	89	92	116	62	171
5	141	78	41	75	75	150	74	152
Rata-rata	157,8	71,8	43,8	76,8	75,2	143,6	78,6	152
± SD	17,1	8,3	8,3	8,4	11,6	18,2	13,8	16,5
KV	7,66	11,5	18,9	10,9	15,4	12,6	17,5	10,8

**LAMPIRAN E**

**HASIL UJI WAKTU PEMBASAHAN TABLET KO-PROSES**

**REPLIKASI I**

No	Waktu Pembasahan Tablet Ko-proses (detik)							
	F1	F2	F3	F4	F5	F6	F7	F8
1	28	59	45	82	31	145	46	95
2	117	74	41	55	37	178	62	97
3	119	61	25	62	57	174	52	122
4	42	85	58	45	57	162	32	65
5	33	66	35	62	37	177	61	90
Rata-rata	67,8	69	40,8	61,6	43,8	167,2	50,6	93,8
± SD	46,1	10,6	12,2	12,9	12,2	13,9	12,3	20,3
KV	67,9	15,3	29,9	20,9	27,8	8,31	24,3	21,6

**REPLIKASI II**

No	Waktu Pembasahan Tablet Ko-proses (detik)							
	F1	F2	F3	F4	F5	F6	F7	F8
1	46	114	60	33	75	133	56	127
2	51	145	48	58	78	125	42	82
3	42	133	51	71	76	120	51	62
4	89	141	46	54	42	143	50	173
5	114	146	50	64	42	122	3	94
Rata-rata	68,4	141,2	51	56	62,6	128,6	40,4	107,6
± SD	31,6	5,1	5,3	14,73	18,3	9,4	21,5	43,5
KV	46,1	3,61	10,3	26,3	29,2	7,31	53,2	40,4



### REPLIKASI III

No	Waktu Pembasahan Tablet Ko-proses (detik)							
	F1	F2	F3	F4	F5	F6	F7	F8
1	38	99	35	47	33	154	51	85
2	36	54	47	39	44	153	42	61
3	42	70	40	59	40	128	63	82
4	50	38	30	93	47	135	40	118
5	39	28	43	40	20	127	56	105
Rata-rata	41	57,8	39	45,6	36,8	139,4	50,4	90,2
± SD	5,4	28,1	6,67	8,1	10,7	13,2	9,6	22,1
KV	13,1	48,6	17,1	17,7	29,1	9,46	19,1	24,5

**LAMPIRAN F**  
**HASIL Uji Rasio Absorpsi Air Tablet Ko-Proses**

**REPLIKASI I**

<b>Formula</b>	<b>Wb (g)</b>	<b>Wa (g)</b>	<b>Rasio</b>	<b>Rata-rata ± SD</b>	<b>KV</b>
F1	0,0943	0,1147	17,78	31,74 ± 9,91	31,22
	0,0952	0,1313	27,49		
	0,0939	0,1508	37,73		
	0,0931	0,1368	31,94		
	0,0913	0,1623	43,75		
F2	0,0967	0,1299	25,56	29,18 ± 4,32	14,80
	0,0967	0,1303	25,79		
	0,0945	0,1338	29,37		
	0,0951	0,1338	28,92		
	0,0987	0,1548	36,24		
F3	0,091	0,13	30,00	28,09 ± 3,96	14,11
	0,0935	0,1201	22,15		
	0,0933	0,1324	29,53		
	0,0921	0,1363	32,43		
	0,0908	0,1233	26,36		
F4	0,0964	0,139	30,65	31,57 ± 5,13	4,22
	0,0926	0,1251	25,98		
	0,0941	0,1375	31,56		
	0,0959	0,1365	29,74		
	0,0919	0,153	39,93		
F5	0,0997	0,1599	37,65	33,61 ± 7,61	22,64
	0,0991	0,1347	26,43		
	0,0962	0,1377	30,14		
	0,0989	0,1797	44,96		
	0,092	0,1293	28,85		
F6	0,096	0,116	17,24	13,70 ± 5,34	39,00
	0,095	0,104	8,65		
	0,092	0,108	14,81		
	0,096	0,12	20,00		
	0,095	0,103	7,77		
F7	0,094	0,147	36,05	39,53 ± 5,93	14,99
	0,097	0,143	32,17		
	0,094	0,173	45,66		
	0,095	0,154	38,31		
	0,096	0,176	45,45		
F8	0,099	0,144	31,25	34,39 ± 5,65	16,43
	0,091	0,16	43,13		
	0,096	0,15	36,00		
	0,094	0,131	28,24		
	0,096	0,144	33,33		

## REPLIKASI II

Formula	Wb (mg)	Wa (mg)	Rasio	Rata-rata ± SD	KV
F1	0,0913	0,1684	45,78	35,28 ± 5,90	16,72
	0,0938	0,1389	32,47		
	0,093	0,1399	33,52		
	0,0948	0,1398	32,19		
	0,0932	0,1379	32,41		
F2	0,0956	0,1311	27,08	28,52 ± 3,46	12,14
	0,0935	0,1352	30,84		
	0,0906	0,1291	29,82		
	0,0939	0,1222	23,16		
	0,0951	0,1392	31,68		
F3	0,0913	0,1612	43,36	46,23 ± 2,58	5,59
	0,0949	0,1795	47,13		
	0,0943	0,1721	45,21		
	0,0937	0,1712	45,27		
	0,0931	0,1869	50,19		
F4	0,0989	0,1823	45,75	42,11 ± 4,69	11,15
	0,095	0,1758	45,96		
	0,0952	0,1695	43,83		
	0,0931	0,1428	34,80		
	0,0947	0,1583	40,18		
F5	0,0907	0,1501	39,57	43,03 ± 2,39	5,54
	0,0928	0,164	43,41		
	0,0936	0,1645	43,10		
	0,0904	0,1683	46,29		
	0,0913	0,1596	42,79		
F6	0,098	0,118	16,95	26,61 ± 6,50	24,45
	0,092	0,121	23,97		
	0,0901	0,132	31,74		
	0,096	0,132	27,27		
	0,095	0,142	33,10		
F7	0,099	0,193	50,05	50,05 ± 1,76	3,51
	0,098	0,19	48,42		
	0,099	0,206	51,94		
	0,098	0,204	51,96		
	0,099	0,195	49,23		
F8	0,097	0,138	29,71	35,03 ± 10,38	29,63
	0,088	0,158	44,30		
	0,083	0,16	48,13		
	0,099	0,135	26,67		
	0,095	0,129	26,36		

### REPLIKASI III

Formula	Wb (mg)	Wa (mg)	Rasio	Rata-rata ± SD	KV
F1	0,0936	0,1475	36,54	37,42 ± 3,02	8,08
	0,0912	0,1528	40,31		
	0,0938	0,1447	35,18		
	0,0937	0,1424	34,20		
	0,0934	0,158	40,89		
F2	0,0942	0,1171	19,56	29,09 ± 7,99	27,46
	0,0994	0,1341	25,88		
	0,0987	0,1324	25,45		
	0,0955	0,1567	39,06		
	0,0958	0,1486	35,53		
F3	0,0902	0,1726	36,13	43,99 ± 5,46	12,41
	0,0913	0,1872	43,19		
	0,0911	0,1492	34,47		
	0,0903	0,1476	22,10		
	0,0902	1589	38,20		
F4	0,0973	0,1481	34,30	33,16 ± 6,33	19,08
	0,0988	0,1348	26,71		
	0,0982	0,1349	27,21		
	0,0978	0,1523	35,78		
	0,0991	0,1703	41,81		
F5	0,0987	0,1516	34,89	39,02 ± 8,99	23,05
	0,0876	0,1501	41,64		
	0,0964	0,1636	41,08		
	0,0853	0,1162	26,59		
	0,0821	0,1672	50,90		
F6	0,093	0,141	34,04	27,31 ± 5,03	18,42
	0,096	0,121	20,66		
	0,094	0,125	24,80		
	0,095	0,135	29,63		
	0,09	0,124	27,42		
F7	0,093	0,184	49,46	45,88 ± 3,50	7,62
	0,096	0,176	45,45		
	0,098	0,164	40,24		
	0,097	0,186	47,85		
	0,097	0,181	46,41		
F8	0,098	0,172	43,02	42,84 ± 1,67	3,90
	0,095	0,163	41,72		
	0,096	0,164	41,46		
	0,098	0,17	42,35		
	0,087	0,16	45,63		

**LAMPIRAN G**

**HASIL UJI MUTU FISIK GRANUL KO-PROSES OPTIMUM**

<b>Formula Optimum</b>	<b>Kelembapan (%)</b>	<b>Persyaratan (%)</b>	<b>Carr's Index (%)</b>	<b>Persyaratan (%)</b>	<b>Hausner Ratio</b>	<b>Persyaratan</b>
Batch 1	2,89		19,81		1,24	
Batch 2	2,78	2 – 5%	19,01	16-20 = cukup	1,23	< 1,25
Batch 3	2,65	(Ansel,	20,2	(Hadisoewignyo	1,25	(Mathpati <i>et</i>
Rata-rata	2,77	1989)	19,67	dan Fudholi,	1,24	<i>al</i> , 2012)
± SD	0,12		0,61	2013)	0,01	

**LAMPIRAN H**

**HASIL UJI KEKERASAN TABLET KO-PROSES OPTIMUM**

No	Kekerasan Tablet Ko-proses Optimum (Kp)		
	Batch 1	Batch 2	Batch 3
1	3,5	3,3	3,3
2	3,7	3,5	3,6
3	3,3	3,3	3,4
4	3,4	3,5	3,5
5	2,8	3,4	3,7
6	3,3	3,1	3,7
7	3,2	3,4	3,3
8	3,2	3,6	3,7
9	3,4	3,3	3,3
10	3,2	3,3	3,6
Rata- rata	3,30	3,37	3,51
$\pm$ SD	0,24	0,14	0,17
KV	7,14	4,21	4,93

**LAMPIRAN I**

**HASIL UJI KERAPUHAN TABLET KO-PROSES OPTIMUM**

Formula	Replikasi	Berat awal (gram)	Berat akhir (gram)	Kerapuhan (%)	Rata- rata $\pm$ SD	KV
Batch 1	I	1,933	1,930	0,135		
Batch 2	I	1,985	1,982	0,151	0,164 $\pm$ 0,03	22,57
Batch 3	I	1,950	1,946	0,205		

**LAMPIRAN J**

**HASIL UJI WAKTU HANCUR TABLET KO-PROSES OPTIMUM**

No	Waktu Hancur Tablet Ko-proses Optimum (detik)		
	Batch 1	Batch 2	Batch 3
1	98	100	99
2	101	99	103
3	98	101	96
4	99	98	99
5	97	100	98
Rata-rata	98,60	99,60	99,00
$\pm$ SD	1,52	1,14	2,55
KV	1,54	1,14	2,58



**LAMPIRAN K**

**HASIL UJI WAKTU PEMBASAHAN TABLET KO-PROSES**

**OPTIMUM**

No	Waktu Pembasahan Tablet Ko-proses Optimum (detik)		
	Batch 1	Batch 2	Batch 3
1	91	102	94
2	90	96	91
3	97	86	87
4	89	95	98
5	95	100	102
Rata-rata	92,4	95,8	94,4
± SD	3,07	5,53	5,24
KV	3,33	5,77	5,55

**LAMPIRAN L**

**HASIL Uji Rasio Absorpsi Air Tablet Ko-Proses**

**Optimum**

<b>Formula Optimum</b>	<b>Wb (mg)</b>	<b>Wa (mg)</b>	<b>Rasio</b>	<b>Rata-rata ± SD</b>	<b>KV</b>
Batch 1	0,0921	0,1305	29,43		
	0,0913	0,1308	30,20	29,94	
	0,0911	0,1311	30,51	±	1,92
	0,0937	0,1324	29,23	0,57	
	0,0928	0,1332	30,33		
Batch 2	0,0924	0,1315	29,73		
	0,0918	0,1298	29,28	29,62	
	0,0926	0,1341	30,95	±	3,31
	0,0912	0,1301	29,90	3,99	
	0,0932	0,1299	28,25		
Batch 3	0,0936	0,1351	30,72		
	0,0912	0,1313	30,54	30,46	
	0,0924	0,1357	31,91	±	5,00
	0,0919	0,1336	31,21	1,52	
	0,0943	0,1308	27,91		

**LAMPIRAN M**

**HASIL UJI MUTU FISIK GRANUL ODT DOMPERIDONE**

<b>Formula ODT Domperidone</b>	<b>Kelembapan (%)</b>	<b>Persyaratan (%)</b>	<b><i>Carr's Index</i> (%)</b>	<b>Persyaratan (%)</b>	<b><i>Hausner Ratio</i></b>	<b>Persyaratan</b>
Batch 1	2,89		19,94		1,24	
Batch 2	2,78	2 – 5%	16,06	16-20 = cukup	1,19	< 1,25
Batch 3	2,65	(Ansel,	17,19	(Hadisoewignyo	1,21	(Mathpati <i>et</i>
Rata-rata	2,77	1989)	17,73	dan Fudholi,	1,21	<i>al</i> , 2012)
± SD	0,12		1,99	2013)	0,03	

**LAMPIRAN N**

**HASIL UJI KESERAGAMAN KANDUNGAN TABLET ODT DOMPERIDONE**

Formula ODT Domperidone	Absorbansi	Bobot Tablet	Kons, Sampel	Kadar Bahan	Kadar
		(mg)	(µg/ml)	Aktif (mg)	(%)
Batch 1	0,238	102	7,56446	9,455575	94,55575
	0,241	109	7,66899	9,586237	95,86237
	0,236	107	7,494774	9,368467	93,68467
	0,239	109	7,599303	9,499129	94,99129
	0,226	108	7,146341	8,932927	89,32927
	0,229	109	7,250871	9,063589	90,63589
	0,230	107	7,285714	9,107143	91,07143
	0,232	106	7,367015	9,208769	92,08769
	0,234	108	7,436702	9,295877	92,95877
	0,236	98	7,506388	9,382985	93,82985
					X
					SD
					KV
					92,90
					2,088
					2,248

Batch 2	0,238	100	7,576074	9,470093	94,70093	
	0,240	99	7,645761	9,557201	95,57201	
	0,238	98	7,56446	9,455575	94,55575	
	0,241	99	7,66899	9,586237	95,86237	
	0,236	109	7,494774	9,368467	93,68467	
	0,239	107	7,599303	9,499129	94,99129	
	0,226	108	7,146341	8,932927	89,32927	
	0,229	108	7,250871	9,063589	90,63589	
	0,225	109	7,111498	8,889373	88,89373	
	0,237	101	7,529617	9,412021	94,12021	
					X	93,23461
					SD	2,607364
					KV	2,796562
Batch 3	0,235	101	7,45993	9,324913	93,24913	
	0,239	100	7,599303	9,499129	94,99129	
	0,238	102	7,56446	9,455575	94,55575	
	0,241	102	7,66899	9,586237	95,86237	
	0,236	101	7,494774	9,368467	93,68467	
	0,239	98	7,599303	9,499129	94,99129	
	0,226	98	7,146341	8,932927	89,32927	
	0,229	99	7,250871	9,063589	90,63589	
	0,229	99	7,250871	9,063589	90,63589	
					X	92,37805
					SD	3,180735
					KV	3,443172

**LAMPIRAN O**

**HASIL UJI KEKERASAN TABLET ODT DOMPERIDONE**

No	Kekerasan Tablet ODT Domperidone (Kp)		
	Batch 1	Batch 2	Batch 3
1	3,5	3,3	3,4
2	3,3	3,1	3,3
3	3,1	3,3	3,1
4	3,3	3,4	3,4
5	3,5	3,5	3,3
6	3,6	3,2	3,5
7	2,8	3,3	3,3
8	3,1	3,1	3,1
9	3	3,3	3,3
10	3,5	3,3	3,4
Rata-rata	0,26	0,12	0,13
$\pm$ SD	3,27	3,28	3,31
KV	8,03	3,75	3,89

**LAMPIRAN P**

**HASIL UJI KERAPUHAN TABLET ODT DOMPERIDONE**

Formula ODT Domperidone	Replikasi	Berat awal (gram)	Berat akhir (gram)	Kerapuhan (%)	Rata- rata ± SD	KV
Batch 1	I	2,174	2,170	0,170	0,19 ± 0,07	36,82
Batch 2	I	2,078	2,073	0,265		
Batch 3	I	2,083	2,083	0,130		

**LAMPIRAN Q**

**HASIL UJI WAKTU HANCUR TABLET ODT DOMPERIDONE**

No	Waktu Hancur Tablet ODT Domperidone (detik)		
	Batch 1	Batch 2	Batch 3
1	182	192	197
2	175	184	189
3	195	196	194
4	169	188	199
5	195	194	182
Rata-rata	183,20	190,80	192,20
± SD	11,71	4,82	6,83
KV	6,39	2,52	3,56



**LAMPIRAN R**

**HASIL UJI WAKTU PEMBASAHAH TABLET ODT**

**DOMPERIDONE**

No	Waktu Pembasahan Tablet ODT Domperidone (detik)		
	Batch 1	Batch 2	Batch 3
1	192	216	224
2	204	201	205
3	187	197	199
4	196	185	189
5	205	191	194
Rata-rata	196,80	198,00	202,20
± SD	7,73	11,75	13,55
KV	3,93	5,93	6,70

**LAMPIRAN S**

**HASIL UJI RASIO ABSORPSI AIR TABLET ODT DOMPERIDONE**

<b>Formula ODT Domperidone</b>	<b>Wb (g)</b>	<b>Wa (g)</b>	<b>Rasio</b>	<b>Rata-rata ± SD</b>	<b>KV</b>
Batch 1	0,1053	0,2859	63,17	51,65 ± 7,31	14,15
	0,1037	0,1913	45,79		
	0,1106	0,2018	45,19		
	0,1074	0,2314	53,59		
	0,1063	0,2148	50,51		
Batch 2	0,1051	0,2168	51,52	51,21 ± 4,03	7,87
	0,1072	0,2011	46,69		
	0,1087	0,2454	55,70		
	0,0985	0,2167	54,55		
	0,1187	0,2265	47,59		
Batch 3	0,1059	145,1	60,05	59,56 ± 2,50	4,21
	0,1062	134,1	56,62		
	0,1033	139,0	62,31		
	0,0989	138,5	61,47		
	0,1053	142,1	57,33		

**LAMPIRAN T**  
**HASIL UJI PENETAPAN KADAR TABLET ODT DOMPERIDONE**

Formula	Rep,	W sampel (mg)	Abs,	C sampel (µg/ml)	W Bahan Aktif (mg)	W tablet rata-rata (mg)	W Bahan Aktif (mg)	Kadar (%)	Rata-rata ± SD	KV (%)
Batch 1	I	100,6	0,241	7,67	9,59	97,25	9,29	92,9	92,97	2,26
	II	100,1	0,231	7,32	9,15	99,46	9,09	90,9	±	
	III	100,3	0,244	7,77	9,72	98,18	9,51	95,1	2,10	
Batch 2	I	100,3	0,248	7,92	9,9	94,85	9,36	93,6	92,37	1,42
	II	100,2	0,237	7,53	9,41	96,95	9,10	91,0	±	
	III	100,4	0,238	7,56	9,45	98,26	9,25	92,5	1,31	
Batch 3	I	100,4	0,241	7,67	9,58	96,94	9,25	92,5	92,20	0,33
	II	100,1	0,232	7,36	9,2	100,39	9,22	92,2	±	
	III	100,5	0,238	7,57	9,46	97,71	9,19	91,9	0,30	
Pembanding 1	1	100,2	0,231	7,32	9,15	109,0	9,95	99,5	99,23	0,64
	2	100,8	0,234	7,42	9,28	108,3	9,97	99,7	±	
	3	100,5	0,229	7,25	9,06	109,3	9,85	98,5	0,64	
Pembanding 2	1	100,6	0,236	7,49	9,37	104,0	9,69	96,9	98,87	1,81
	2	100,8	0,235	7,46	9,33	107,3	9,93	99,3	±	
	3	100,2	0,238	7,56	9,46	106,3	10,04	100,4	1,79	

Keterangan: Pembanding 1 = tablet generik domperidone

Pembanding 2 = ODT domperidone dengan nama dagang

**LAMPIRAN U**  
**HASIL UJI DISOLUSI ODT DOMPERIDONE**

Hasil Uji Disolusi Batch 1

Rep,	t (menit)	Abs	C (µg/ml)	Wt (mg)	% obat terlepas	AUC (µg menit / ml)
I		0,201				
		0,211				
		0,225				
	1	0,238	6,28	5,65	57,50	2,82
	2	0,273	6,62	5,96	60,69	5,80
	4	0,279	7,11	6,40	65,16	12,36
	6	0,284	7,56	6,81	69,31	13,21
	8	0,279	8,78	7,91	80,49	14,71
	10	0,281	8,99	8,09	82,40	16,00
	15	0,284	9,17	8,25	84,00	40,86
	20		8,99	8,09	82,40	40,86
	25		9,06	8,16	83,04	40,63
	30		9,17	8,25	84,00	41,02
					Σ AUC	228,28
					% ED	74,74

II	1	0,163	4,95	4,46	45,37	2,23
	2	0,198	6,17	5,55	56,54	5,00
	4	0,253	8,09	7,28	74,10	12,83
	6	0,261	8,37	7,53	76,66	14,81
	8	0,282	9,10	8,19	83,36	15,72
	10	0,287	9,27	8,34	84,96	16,53
	15	0,289	9,34	8,41	85,60	41,88
	20	0,288	9,31	8,38	85,28	41,96
	25	0,285	9,20	8,28	84,32	41,64
	30	0,272	8,75	7,87	80,17	40,39
					Σ AUC	232,99
					% ED	76,28

III	1	0,219	6,90	6,21	63,25	3,11
	2	0,247	7,88	7,09	72,19	6,65
	4	0,256	8,19	7,37	75,06	14,46
	6	0,263	8,44	7,59	77,30	14,96
	8	0,269	8,64	7,78	79,21	15,37
	10	0,263	8,44	7,59	77,30	15,37
	15	0,267	8,57	7,72	78,57	38,27
	20	0,281	9,06	8,16	83,04	39,68
	25	0,275	8,85	7,97	81,13	40,31
	30	0,264	8,47	7,62	77,61	38,98
					Σ AUC	227,18
					% ED	74,38

### Hasil Uji Disolusi Batch 2

Rep.	t (menit)	Abs	C (µg/ml)	Wt (mg)	% obat terlepas	AUC (µg menit / ml)
I	1	0,179	5,51	4,96	52,43	2,48
	2	0,188	5,82	5,24	53,35	5,10
	4	0,229	7,25	6,53	66,44	11,77
	6	0,268	8,61	7,75	78,89	14,27
	8	0,285	9,20	8,28	84,32	16,03
	10	0,289	9,34	8,41	85,60	16,69
	15	0,296	9,59	8,63	87,83	42,59
	20	0,283	9,13	8,22	83,68	42,11
	25	0,283	9,13	8,22	83,68	41,10
	30	0,28	9,03	8,13	82,72	40,86
	Σ AUC					232,99
					% ED	73,44
II	1	0,196	6,10	5,49	58,07	2,75
	2	0,212	6,66	5,99	61,01	5,74
	4	0,249	7,95	7,15	72,83	13,15
	6	0,267	8,57	7,72	78,57	14,87
	8	0,275	8,85	7,97	81,13	15,69
	10	0,281	9,06	8,16	83,04	16,12
	15	0,285	9,20	8,28	84,32	41,10
	20	0,288	9,31	8,38	85,28	41,64
	25	0,281	9,06	8,16	83,04	41,33
	30	0,285	9,20	8,28	84,32	41,10
Σ AUC						233,48

					% ED	73,59
III	1	0,175	5,37	4,83	51,10	2,42
	2	0,205	6,41	5,77	58,78	5,30
	4	0,248	7,91	7,12	72,51	12,89
	6	0,269	8,64	7,78	79,21	14,90
	8	0,279	8,99	8,09	82,40	15,87
	10	0,281	9,06	8,16	83,04	16,25
	15	0,289	9,34	8,41	85,60	41,41
	20	0,284	9,17	8,25	84,00	41,64
	25	0,281	9,06	8,16	83,04	41,02
	30	0,279	8,99	8,09	82,40	40,63
					$\Sigma$ AUC	232,34
					% ED	73,23



### Hasil Uji Disolusi Batch 3

Rep,	t (menit)	Abs	C (µg/ml)	Wt (mg)	% obat terlepas	AUC (µg menit / ml)
I	1	0,186	5,75	5,18	53,05	2,59
	2	0,216	6,80	6,12	62,29	5,65
	4	0,259	8,30	7,47	76,02	13,58
	6	0,265	8,51	7,65	77,93	15,12
	8	0,277	8,92	8,03	81,77	15,69
	10	0,284	9,17	8,25	84,00	16,28
	15	0,289	9,34	8,41	85,60	41,64
	20	0,288	9,31	8,38	85,28	41,96
	25	0,281	9,06	8,16	83,04	41,33
	30	0,272	8,75	7,87	80,17	40,08
					Σ AUC	233,92
					% ED	76,09

II

1	0,171	5,22997	4,70697	48,23207953	2,35348
2	0,198	6,17073	5,55366	56,54305169	5,13031
4	0,225	7,1115	6,40035	65,16339271	11,954
6	0,266	8,54007	7,68606	78,25354019	14,0864
8	0,282	9,09756	8,1878	83,36189043	15,8739
10	0,289	9,34146	8,40732	85,59679366	16,5951
15	0,289	9,34146	8,40732	85,59679366	42,0366
20	0,285	9,20209	8,28188	84,3197061	41,723
25	0,283	9,1324	8,21916	83,68116232	41,2526
30	0,279	8,99303	8,09373	82,40407476	40,7822

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$\sum$ AUC	231,788
% ED	75,4005

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III	1	0,185	5,72	5,15	52,73	2,57
	2	0,2	6,24	5,62	57,18	5,38
	4	0,252	8,05	7,25	73,78	12,86
	6	0,267	8,57	7,72	78,57	14,96
	8	0,281	9,06	8,16	83,04	15,87
	10	0,287	9,27	8,34	84,96	16,50
	15	0,285	9,20	8,28	84,32	41,57
	20	0,281	9,06	8,16	83,04	41,10
	25	0,285	9,20	8,28	84,32	41,10
	30	0,279	8,99	8,09	82,40	40,94

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$\Sigma$ AUC	232,85
% ED	75,75

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Hasil Uji Disolusi Tablet Pembanding 1 (Obat Generik)

Rep,	t (menit)	Abs	C (µg/ml)	Wt (mg)	% obat terlepas	AUC (µg menit / ml)
I	1	0,058	1,29	1,17	11,79	0,58
	2	0,139	4,12	3,71	37,40	0,24
	4	0,202	6,31	5,68	57,26	9,39
	6	0,201	6,28	5,65	56,96	11,33
	8	0,226	7,15	6,43	64,82	12,08
	10	0,294	9,52	8,57	86,39	15,00
	15	0,238	7,57	6,81	68,65	38,45
	20	0,246	7,85	7,06	71,17	34,68
	25	0,246	7,85	7,06	71,17	35,31
	30	0,248	7,92	7,12	71,77	35,47
	Σ AUC % ED					194,72 65,43
II	1	0,053	1,12	1,01	10,18	0,50
	2	0,119	3,42	3,08	31,05	2,04
	4	0,184	5,69	5,12	51,61	8,20
	6	0,228	7,22	6,50	65,52	11,61
	8	0,214	6,73	6,06	61,09	12,56
	10	0,265	8,51	7,66	77,22	13,72
	15	0,228	7,22	6,50	65,52	35,39
	20	0,251	8,02	7,22	72,78	34,29
	25	0,250	7,99	7,19	72,48	36,01
	30	0,258	8,26	7,44	75,0	36,56
Σ AUC						190,88

					% ED	
						64,14
III	1	0,057	1,26	1,13	11,39	0,57
	2	0,125	3,63	3,27	32,96	2,20
	4	0,209	6,56	5,90	59,48	9,17
	6	0,221	6,98	6,28	63,31	12,18
	8	0,224	7,08	6,37	64,21	12,65
	10	0,219	6,91	6,21	62,60	12,59
	15	0,248	7,92	7,12	71,77	33,35
	20	0,259	8,30	7,47	75,30	36,48
	25	0,251	8,02	7,22	72,78	36,72
	30	0,244	7,78	7,00	70,56	35,54
					$\Sigma$ AUC	191,45
					% ED	64,33

Hasil Uji Disolusi Tablet Pembanding 2 (Obat dengan Nama Dagang)

Rep,	t (menit)	Abs	C (µg/ml)	Wt (mg)	% obat terlepas	AUC (µg menit / ml)
I	1	0,079	2,03	1,82	18,40	0,91
	2	0,124	3,59	3,24	32,76	2,53
	4	0,168	5,13	4,62	46,71	7,85
	6	0,228	7,22	6,50	65,72	11,11
	8	0,205	6,42	5,78	58,44	12,27
	10	0,206	6,45	5,81	58,75	11,58
	15	0,230	7,29	6,56	66,33	30,92
	20	0,230	7,29	6,56	66,33	32,80
	25	0,232	7,36	6,62	66,94	32,96
	30	0,244	7,78	7,00	70,78	34,05
						176,99
						Σ AUC
						% ED
						59,11
II	1	0,077	1,96	1,76	17,80	0,88
	2	0,144	4,29	3,86	39,03	2,81
	4	0,171	5,23	4,71	47,62	8,57
	6	0,198	6,17	5,56	56,22	10,27
	8	0,217	6,84	6,15	62,18	11,71
	10	0,226	7,15	6,43	65,02	12,59
	15	0,232	7,36	6,62	66,94	32,64
	20	0,241	7,67	6,90	69,77	33,82
	25	0,225	7,11	6,40	64,71	33,27
	30	0,237	7,53	6,78	68,55	32,96
						Σ AUC
						179,51

					% ED	
						60,50
III	1	0,076	1,92	1,73	17,49	0,86
	2	0,121	3,49	3,14	31,75	2,44
	4	0,188	5,83	5,24	52,98	8,38
	6	0,210	6,59	5,93	59,96	11,18
	8	0,216	6,80	6,12	61,88	12,05
	10	0,219	6,91	6,21	62,79	12,34
	15	0,226	7,15	6,43	65,01	31,62
	20	0,238	7,57	6,81	68,86	33,11
	25	0,231	7,32	6,59	66,63	33,51
	30	0,242	7,71	6,94	70,17	33,82
					Σ AUC	179,31
					% ED	60,43

**LAMPIRAN V**

**HASIL UJI STABILITAS TABLET KO-PROSES OPTIMUM**

Hasil Uji Stabilitas Kekerasan Tablet Ko-proes Optimum

No	Kekerasan Tablet Ko-proses Optimum (Kp)		
	Batch 1	Batch 2	Batch 3
1	3,6	3,3	3,5
2	3,1	3,3	3,3
3	3,2	3,3	3,1
4	3,2	3,5	3,2
5	2,9	3,4	3,5
6	3,3	3,2	3,5
7	3,6	3,4	2,9
8	3,2	3,2	3,2
9	3,4	3	3,3
10	3,5	3,3	3,6
Rata-rata	0,23	0,14	0,22
± SD	3,30	3,29	3,31
KV	6,85	4,17	6,60

Hasil Uji Stabilitas Kerapuhan Tablet Ko-proses Optimum

Formula Optimum	Replikasi	Berat awal (gram)	Berat akhir (gram)	Kerapuhan (%)	Rata-rata ± SD	KV
Batch 1	I	1,982	1,980	0,081	0,08 ± 0,01	15,13
Batch 2	I	1,971	1,970	0,071		
Batch 3	I	1,983	1,982	0,096		



## Hasil Uji Stabilitas Waktu Hancur Tablet Ko-proses Optimum

No	Waktu Hancur Tablet Ko-proses Optimum (detik)		
	Batch 1	Batch 2	Batch 3
1	101	98	100
2	99	101	101
3	95	101	99
4	100	97	99
5	98	99	98
Rata-rata	98,6	99,2	99,4
± SD	2,30	1,79	1,14
KV	2,33	1,80	1,15

### Hasil Uji Stabilitas Waktu Pembasahan Tablet Ko-proses Optimum

No	Waktu Pembasahan Tablet Ko-proses Optimum (detik)		
	Batch 1	Batch 2	Batch 3
1	93	91	91
2	91	94	93
3	99	89	92
4	91	102	89
5	93	93	94
Rata-rata	93,40	93,80	91,80
± SD	2,94	4,45	1,72
KV	3,15	4,74	1,87

### Hasil Uji Stabilitas Rasio Absorpsi Air Tablet Ko-proses Optimum

Formula Optimum	Wb (mg)	Wa (mg)	Rasio	Rata-rata ± SD	KV
Batch 1	0,0953	0,1341	28,93	29,84 ± 1,02	3,42
	0,0971	0,1419	31,57		
	0,0924	0,1315	29,73		
	0,0985	0,1393	29,29		
	0,0981	0,1395	29,68		
Batch 2	0,0963	0,1345	28,40	29,32 ± 1,09	3,71
	0,0991	0,1418	30,11		
	0,0912	0,1289	29,25		
	0,0937	0,1352	30,70		
	0,0919	0,1279	28,15		
Batch 3	0,0982	0,1411	30,40	29,93 ± 0,88	2,95
	0,0976	0,1376	29,07		
	0,0977	0,1381	29,25		
	0,0919	0,1336	31,21		
	0,0959	0,1364	29,69		

**LAMPIRAN W**  
**HASIL UJI STABILITAS TABLET ODT DOMPERIDONE**

Hasil Uji Stabilitas Kekerasan Tablet ODT Domperidone

No	Kekerasan Tablet ODT D0mperidone (Kp)		
	Batch 1	Batch 2	Batch 3
1	3,3	3	3,5
2	3,6	3,7	3,5
3	3,1	2,9	3,4
4	3,5	3,6	3,1
5	3,2	3,4	3,3
6	3,3	3,3	3,6
7	3,1	3,1	2,9
8	2,9	3,1	2,9
9	3	3,3	3,4
10	3,4	3,3	3,3
Rata-rata	0,22	0,25	0,25
± SD	3,24	3,27	3,29
KV	6,86	7,77	7,51

Hasil Uji Stabilitas Kerapuhan Tablet ODT Domperidone

Formula ODT Domperidone	Replikasi	Berat awal (gram)	Berat akhir (gram)	Kerapuhan (%)	Rata- rata ± SD	KV
Batch 1	I	2,186	2,180	0,274	0,18 ± 0,10	56,85
Batch 2	I	2,069	2,068	0,072		
Batch 3	I	2,025	2,021	0,188		

### Hasil Uji Stabilitas Waktu Hancur Tablet ODT Domperidone

No	Waktu Hancur Tablet ODT Domperidone (detik)		
	Batch 1	Batch 2	Batch 3
1	194	183	199
2	187	194	205
3	188	184	198
4	195	197	206
5	199	199	199
Rata-rata	192,6	191,4	201,4
±SD	5,03	7,44	3,78
KV	2,61	3,89	1,88

### Hasil Uji Stabilitas Waktu Pembasahan Tablet ODT Domperidone

No	Waktu Pembasahan Tablet ODT Domperidone (detik)		
	Batch 1	Batch 2	Batch 3
1	205	228	241
2	199	198	195
3	196	193	207
4	192	204	199
5	201	185	209
Rata-rata	198,60	201,60	210,20
± SD	4,93	16,32	18,14
KV	2,48	8,09	8,63

### Hasil Uji Stabilitas Rasio Absorpsi Air Tablet ODT Domperidone

Formula ODT Domperidone	Wb (mg)	Wa (mg)	Rasio	Rata-rata ± SD	KV
Batch 1	0,1047	0,2872	63,54	52,51 ± 7,34	13,97
	0,1071	0,1945	44,94		
	0,1094	0,2057	46,82		
	0,1074	0,2357	54,43		
	0,1021	0,2163	52,80		
Batch 2	0,1051	0,2168	51,52	53,38 ± 2,32	4,35
	0,1072	0,2259	52,55		
	0,1059	0,2396	55,80		
	0,1075	0,2199	51,11		
	0,1187	0,2693	55,92		
Batch 3	0,1025	0,2267	54,79	54,93 ± 1,75	3,18
	0,1051	0,2256	53,41		
	0,1061	0,2416	56,08		
	0,1098	0,2567	57,23		
	0,1012	0,2159	53,13		

## LAMPIRAN X

### CONTOH PERHITUNGAN

#### Contoh perhitungan Indeks kompresibilitas :

Formula optimum ko-proses 1 replikasi 1

Berat gelas ukur : 127,23 g ( $W_1$ )

Berat gelas ukur + isi : 162,44 g ( $W_2$ )

Berat granul dalam gelas ukur : 35,21 g

V sebelum tapped ( $V_1$ ) = 100ml, V sesudah tapped ( $V_2$ ) = 82 ml

$$\text{Bobot jenis nyata} = \frac{W_2 - W_1}{V_1 (ml)} = \frac{35,21}{100} = 0,3521$$

$$\text{Bobot jenis mampat} = \frac{W_2 - W_1}{V_2 (ml)} = \frac{35,21}{82} = 0,4293$$

$$\% \text{ kompresibilitas} = \left( 1 - \frac{\text{bobot jenis nyata}}{\text{bobot jenis mampat}} \right) \times 100\% = \left( 1 - \frac{0,3521}{0,4293} \right) \times$$

$$100\% = 17,98\%$$

$$HR = \frac{\rho_{tap}}{\rho_{bulk}} = \frac{0,4293}{0,3521} = 1,21$$

#### Contoh hasil perhitungan akurasi presisi:

Replikasi I

Kons,	Massa (mg)	Abs	Kons (µg/ml)	Teoritis (µg/ml)	Perolehan kembali (%)
100%	100,4	0,249	7,95	8,035	98,94

$$\text{Absorbansi} = 0,249 \rightarrow y = 0,0208 + 0,028x$$

$$\text{Konsentrasi sample (x)} = 7,95$$

$$\text{Berat domperidone} = 100,4 \text{ mg}$$

$$W \text{ matrix} = 903,2 \text{ mg}$$

$$W \text{ sample} = 100,4 \text{ mg}$$

Konsentrasi teoritis:

$$10,04 \text{ (dalam 250ml HCl 0,1N)} = (40,17 \text{ ppm} \times 2 \text{ (dipipet)}) / 10(\text{ad}) = 8,035 \text{ ppm}$$

$$\% \text{ perolehan kembali} = (\text{konsentrasi sample} / \text{konsentrasi teoritis}) \times 100\%$$

$$= (7,95 / 8,035) \times 100 = 98,94\%$$

$$\% \text{ KV} = (SD / X_{\text{rata-rata}}) \times 100 = (0,88 / 99,72) \times 100\% = 0,88$$

### Contoh perhitungan penetapan kadar :

Batch 1 replikasi 1

Formula	Rep,	W sampel (mg)	Abs,	Csampel (µg/ml)	W Bahan Aktif (mg)	W tablet rata-rata (mg)	W Bahan Aktif (mg)	Kadar (%)
Batch 1	I	100,6	0,234	7,42	9,28	105,5	9,73	97,33

Absorbansi = 0,241  $\rightarrow y = 0,0209 + 0,0287x$

Konsentrasi sampel (x) = 7,42 ppm

Konsentrasi pengamatan = 7,42 ppm x 5(FP) x (250 ml/1000) = 9,28 mg

Berat tablet rata-rata = 105,5 mg

Berat sampel = 100,6 mg

Berat Domperidone =  $105,5/100,6 \times 9,28 \text{ mg} = 9,73 \text{ mg}$

% Perolehan kembali =  $(9,73 \text{ mg} / 10 \text{ mg}) \times 100\% = 97,33 \%$

KV =  $(SD / X_{\text{rata-rata}}) \times 100\% = (1,49 / 98,22) \times 100\% = 1,522 \%$

### Contoh perhitungan % obat terlepas:

Batch 1 replikasi 1 t = 30menit

Absorbansi = 0,249  $\rightarrow y = 0,0208 + 0,028x$

C<sub>sampel</sub> = 7,95 ppm

W pada PK = 9,3 mg

Wt = 7,95 ppm x 0,9 L = 7,16 mg

% obat terlepas =  $(7,16 \text{ mg} / 9,3 \text{ mg}) \times 100 = 76,98 \%$



**Contoh perhitungan AUC pada menit 30**

$$t_{n-1} = 25$$

$$t_n = 30$$

$$W_{t_n} = 7,16 \text{ mg}$$

$$W_{t_{n-1}} = 7,60 \text{ mg}$$


$$AUC = ((7,16 + 7,60) / 2) \times (30 - 25) = 36,9 \text{ } \mu\text{g menit/ml}$$

$$\begin{aligned} \%ED &= (\sum AUC / L, \text{ persegi}) \times 100 = (213,09 / (30 \text{ menit} \times 9,3 \text{ mg})) \times 100\% \\ &= 76,38\% \end{aligned}$$

# LAMPIRAN Y

## SERTIFIKAT BAHAN


### DOMPERIDONE

 <small>VASUDHA PHARMA CHEM LTD</small>	<p style="text-align: center; margin: 0;"> <b>VASUDHA PHARMA CHEM LIMITED</b>              78/A, VENGAL RAO NAGAR, HYDERABAD-38              ANDHRA PRADESH, INDIA              PHONE: +91-40-2381 2046, 2371 1717, FAX: 91-40-2381 1576              E-MAIL: <a href="mailto:vasudha@vasudhapharma.com">vasudha@vasudhapharma.com</a>, Website: <a href="http://www.vasudhapharma.com">www.vasudhapharma.com</a> </p>
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Name of the product	: DOMPERIDONE	Page No.	: 2 of 2
Batch Number	: BDOM/1106090	A.R.No	: BDOM/11090
Manufacturing Date	: JUN 2011	Expiry Date	: MAY 2016
Dispatch Quantity	: 30.0 Kg.	Analyzed on	: 18/06/2011
Customer Name/ code	: PT Taterasa		

S.No	TEST	RESULT	SPECIFICATION
3.2	Heavy metals (ppm)	Less than 20	Not more than 20
3.3	Loss on drying(% w/w)	0.34	Not more than 0.5
3.4	Sulphated Ash(% w/w)	0.06	Not more than 0.1
3.5	Assay (By titrimetry, %w/w, on dried basis)	99.53	Not less than 99.0 and Not more than 101.0
3.6	Related substances (By HPLC, %)		
	Impurity-A	0.06	Not more than 0.25
	Impurity-B	Not detected	Not more than 0.25
	Impurity-C	Not detected	Not more than 0.25
	Impurity-D	0.14	Not more than 0.25
	Impurity-E	Not detected	Not more than 0.25
	Impurity-F	Not detected	Not more than 0.25
	Unspecified impurities	Not detected	Not more than 0.10
	Total impurity	0.19	Not more than 0.50

REMARKS: The material complies as per the BP specification.



PREPARED BY: <u>[Signature]</u> <small>21/06/2011</small>	CHECKED BY: <u>[Signature]</u> <small>21/06/2011</small>	APPROVED BY: <u>[Signature]</u>
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Ms. VASUDHA PHARMA CHEM LIMITED, Unit-II, Plot No. 79, J.N.Pharma City, Tharam Village, Patwardi Mandalam, Vinodachandram - 531 021, Andhra Pradesh, India.

# ACDISOL

JRS PHARMA  THE EXCIPIENT FAMILY

**VIVASOL<sup>®</sup> / Acetate**

Croscarmellose Sodium Ph. Eur. NF, JP  
CERTIFICATE OF ANALYSIS

Batch-no. 3201022039 Manufacturing site, Pirna, Germany  
Re-evaluation date 05 / 2016  
Manufacturing date 05 / 2012

**Description** Almost white, very hygroscopic powder, practically insoluble in acetone, ethanol, ether and toluene.

Standards	Specification	Batch Result	Reference
Panicle size (retained on air jet sieve)			T226F (MCW)
> 75 µm (200 mesh)	max. 2 %	< 2 %*	
> 45 µm (325 mesh)	max. 10 %	< 10 %*	

Pharmacopoeial test items	Specification	Batch Result	Reference
Identification (A, B, C), (1, 2, 3)	passes	passes*	Ph. Eur., NF, JP
Degree of Substitution	0.60 – 0.85	0.78*	Ph. Eur., NF, JP
Loss on drying	max. 10.0 %	4.8 %	Ph. Eur., NF, JP
pH	5.0 – 7.0	6.2	Ph. Eur., USP, JP
Content of water-soluble material	1.0 – 10.0 %	6.2 %	Ph. Eur., NF, JP
Sulphated ash	14.0 – 28.0 %	passes*	Ph. Eur., JP
Settling volume	10.0 – 30.0 ml	18.5 ml	Ph. Eur., NF, JP
Sodium chloride and Sodium glycolate	max. 0.5 %	< 0.5 %*	Ph. Eur., NF, JP
Heavy metals	max. 10 ppm	< 10 ppm*	T CC 043 (CHP)
Arsenic	max. 2 ppm	< 2 ppm*	T CC 043 (CHP)
Residue of Methanol	max. 1.0 %	< 1.0 %*	T CC 019 (CHP)
Total aerobic microbial count	< 100 CFU / g	< 100 CFU / g*	Ph. Eur., USP
Fungi / molds and yeasts	< 20 CFU / g	< 20 CFU / g*	Ph. Eur., USP
E. coli, Pseudomonas aeruginosa	absent in 10 g	absent*	Ph. Eur., USP
Staph. aureus, Salmonella spec.	absent in 10 g	absent*	Ph. Eur., USP

\* Results reported are expected results based on periodic testing.

The batch described by this certificate meets the requirements of Ph. Eur., NF and JP monographs for "Croscarmellose Sodium" current edition. It is released on the basis of the results ascertained.

The raw materials, manufacturing process, and product do not contain any of the solvents listed in the Residual Solvents (Ph. Eur <5.4>, USP<467>) except for Methanol limited to max. 1.0%.

This product may contain raw materials derived from unauthorized genetically modified cotton and is not suitable for the production or marketing of food or dietary supplements in the EC.

**Storage recommendation:** Protect from excessive heat and moisture.  
Keep containers closed.

July 27, 2012  
AB: 21146101  
VSOL P09

Mathias Winkelmann  
QUALITY CONTROL  
CHP Carbohydrate Pirna

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# MANITOL

DUPLICATA



LC 1 EEJ5 CERTIFICATE OF ANALYSIS / COMPLIANCE

PAGE 1

PT SIGNA HUSADA  
JALAN DAAN MOGOT KM 17  
JAKARTA 11840  
INDONESIA

PEARLITOL 160 C

CUSTOMER.... SIGNA HUSADA/INDONES

450001 D

INVOICE..... PPY60E1  
TONNAGE..... 13.000 KG  
CONTRACT..... F92365G  
ORDER..... RQF-15/12  
BATCH..... E664R  
MANUF&TESTED 15 MARCH 2012

EXPIRY DATE.

15 MAR 2017

E.P./U.S.P.



DESCRIPTION

WHITE CRYSTALLINE POWDER  
ODOURLESS, SWEET TASTE

MEANING TESTED = ANALYZED  
MONITORED = MONITORING PLAN  
GUARANTEED = COMPLIANCE DATA

APPEARANCE		CONFORM	TESTED
APPEARANCE IN SOLUTION		CONFORM	TESTED
LOSS ON DRYING	%	0,08	TESTED
INFRA-RED		CONFORM	TESTED
MELTING POINT	DEG	166	TESTED
START OF MELTING	DEG	166	TESTED
END OF MELTING	DEG	167	TESTED
SPECIFIC ROTATION(BORATE)	DEG.	+ 23,5	TESTED
SPECIFIC ROT.MOLYBDATE	DEG	+ 140,1	TESTED
CONDUCTIVITY	MICROS/C	0,8	TESTED
REDUCING SUGARS	*(USP)	CONFORM	TESTED
D-MANNITOL BY HPLC	%	99,1	TESTED

# PVP K-30

PVP K-30:

杭州南航化工有限公司  
NANHANG INDUSTRIAL CO.,LTD  
地址:中国杭州市西湖区周浦乡姚家坞

## CERTIFICATE OF ANALYSIS

Product	PVP K-30 USP/BP		
Batch No.	20051213	Quantity	2025KGS
Manufacture Date	DEC.,2005	Expiry Date	DEC.,2008
ITEMS	SPECIFICATIONS	TEST RESULTS	
Characteristics	A white, fine powder	Complies	
Identification	Positive	Positive	
Water	5% max	2.8%	
Residue on ignition	0.1% max	0.02%	
K-Value	27-32	30.7	
Heavy metals(Lead)	10ppm max	Complies	
Nitrogen	11.5%-12.8%	12.2%	
Vinylpyrrolidone	0.2% max	0.032%	
Aldehydes	0.05% max	Complies	
Ph Value	3.0-7.0	3.62	
Hydrazine	1ppm max	Complies	
Peroxides	400ppm max	Complies	
Microbial Limits(By annual verification test)	Salmonella	Negative	
	Coli	Negative	
	Coliforms <1CFU/gm	Conform	
	Standard Plate Count<10,000CFU/gm	Conform	
	Mold & Yeast <1,000 CFU/gm	Conform	
Conclusion: IT CONFORMS USP/BP			

Analyst: Wangliuling

Checker: li ling

Head of Q.C Dept: Wang xiao fang



IMP. ANALYST  
E. ANALYST

## LAMPIRAN Z

### TABEL F

**Titik Persentase Distribusi F untuk Probabilita = 0,05**

df untuk penyebut (N2)	df untuk pembilang (N1)														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	161	199	216	225	230	234	237	239	241	242	243	244	245	245	246
2	18.51	19.00	19.16	19.25	19.30	19.33	19.35	19.37	19.38	19.40	19.40	19.41	19.42	19.42	19.43
3	10.13	9.55	9.28	9.12	9.01	8.94	8.89	8.85	8.81	8.79	8.76	8.74	8.73	8.71	8.70
4	7.71	6.94	6.59	6.39	6.26	6.16	6.09	6.04	6.00	5.96	5.94	5.91	5.89	5.87	5.86
5	6.61	5.79	5.41	5.19	5.05	4.95	4.88	4.82	4.77	4.74	4.70	4.68	4.66	4.64	4.62
6	5.99	5.14	4.76	4.53	4.39	4.28	4.21	4.15	4.10	4.06	4.03	4.00	3.98	3.96	3.94
7	5.59	4.74	4.35	4.12	3.97	3.87	3.79	3.73	3.68	3.64	3.60	3.57	3.55	3.53	3.51
8	5.32	4.46	4.07	3.84	3.69	3.58	3.50	3.44	3.39	3.35	3.31	3.28	3.26	3.24	3.22
9	5.12	4.26	3.86	3.63	3.48	3.37	3.29	3.23	3.18	3.14	3.10	3.07	3.05	3.03	3.01
10	4.96	4.10	3.71	3.48	3.33	3.22	3.14	3.07	3.02	2.98	2.94	2.91	2.89	2.86	2.85
11	4.84	3.98	3.59	3.36	3.20	3.09	3.01	2.95	2.90	2.85	2.82	2.79	2.76	2.74	2.72
12	4.75	3.89	3.49	3.26	3.11	3.00	2.91	2.85	2.80	2.75	2.72	2.69	2.66	2.64	2.62
13	4.67	3.81	3.41	3.18	3.03	2.92	2.83	2.77	2.71	2.67	2.63	2.60	2.58	2.55	2.53
14	4.60	3.74	3.34	3.11	2.96	2.85	2.76	2.70	2.65	2.60	2.57	2.53	2.51	2.48	2.46
15	4.54	3.68	3.29	3.06	2.90	2.79	2.71	2.64	2.59	2.54	2.51	2.48	2.45	2.42	2.40
16	4.49	3.63	3.24	3.01	2.85	2.74	2.66	2.59	2.54	2.49	2.46	2.42	2.40	2.37	2.35
17	4.45	3.59	3.20	2.96	2.81	2.70	2.61	2.55	2.49	2.45	2.41	2.38	2.35	2.33	2.31
18	4.41	3.55	3.16	2.93	2.77	2.66	2.58	2.51	2.46	2.41	2.37	2.34	2.31	2.29	2.27
19	4.38	3.52	3.13	2.90	2.74	2.63	2.54	2.48	2.42	2.38	2.34	2.31	2.28	2.26	2.23
20	4.35	3.49	3.10	2.87	2.71	2.60	2.51	2.45	2.39	2.35	2.31	2.28	2.25	2.22	2.20
21	4.32	3.47	3.07	2.84	2.68	2.57	2.49	2.42	2.37	2.32	2.28	2.25	2.22	2.20	2.18
22	4.30	3.44	3.05	2.82	2.66	2.55	2.46	2.40	2.34	2.30	2.26	2.23	2.20	2.17	2.15
23	4.28	3.42	3.03	2.80	2.64	2.53	2.44	2.37	2.32	2.27	2.24	2.20	2.18	2.15	2.13
24	4.26	3.40	3.01	2.78	2.62	2.51	2.42	2.36	2.30	2.25	2.22	2.18	2.15	2.13	2.11
25	4.24	3.39	2.99	2.76	2.60	2.49	2.40	2.34	2.28	2.24	2.20	2.16	2.14	2.11	2.09
26	4.23	3.37	2.98	2.74	2.59	2.47	2.39	2.32	2.27	2.22	2.18	2.15	2.12	2.09	2.07
27	4.21	3.35	2.96	2.73	2.57	2.46	2.37	2.31	2.25	2.20	2.17	2.13	2.10	2.08	2.06
28	4.20	3.34	2.95	2.71	2.56	2.45	2.36	2.29	2.24	2.19	2.15	2.12	2.09	2.06	2.04
29	4.18	3.33	2.93	2.70	2.55	2.43	2.35	2.28	2.22	2.18	2.14	2.10	2.08	2.05	2.03
30	4.17	3.32	2.92	2.69	2.53	2.42	2.33	2.27	2.21	2.16	2.13	2.09	2.06	2.04	2.01
31	4.16	3.30	2.91	2.68	2.52	2.41	2.32	2.25	2.20	2.15	2.11	2.08	2.05	2.03	2.00
32	4.15	3.29	2.90	2.67	2.51	2.40	2.31	2.24	2.19	2.14	2.10	2.07	2.04	2.01	1.99
33	4.14	3.28	2.89	2.66	2.50	2.39	2.30	2.23	2.18	2.13	2.09	2.06	2.03	2.00	1.98
34	4.13	3.28	2.88	2.65	2.49	2.38	2.29	2.23	2.17	2.12	2.08	2.05	2.02	1.99	1.97
35	4.12	3.27	2.87	2.64	2.49	2.37	2.29	2.22	2.16	2.11	2.07	2.04	2.01	1.99	1.96
36	4.11	3.26	2.87	2.63	2.48	2.36	2.28	2.21	2.15	2.11	2.07	2.03	2.00	1.98	1.95
37	4.11	3.25	2.86	2.63	2.47	2.36	2.27	2.20	2.14	2.10	2.06	2.02	2.00	1.97	1.95
38	4.10	3.24	2.85	2.62	2.46	2.35	2.26	2.19	2.14	2.09	2.05	2.02	1.99	1.96	1.94
39	4.09	3.24	2.85	2.61	2.46	2.34	2.26	2.19	2.13	2.08	2.04	2.01	1.98	1.95	1.93
40	4.08	3.23	2.84	2.61	2.45	2.34	2.25	2.18	2.12	2.08	2.04	2.00	1.97	1.95	1.92
41	4.08	3.23	2.83	2.60	2.44	2.33	2.24	2.17	2.12	2.07	2.03	2.00	1.97	1.94	1.91
42	4.07	3.22	2.83	2.59	2.44	2.32	2.24	2.17	2.11	2.06	2.03	1.99	1.96	1.94	1.91
43	4.07	3.21	2.82	2.59	2.43	2.32	2.23	2.16	2.11	2.06	2.02	1.99	1.96	1.93	1.91
44	4.06	3.21	2.82	2.58	2.43	2.31	2.23	2.16	2.10	2.05	2.01	1.98	1.95	1.92	1.90
45	4.06	3.20	2.81	2.58	2.42	2.31	2.22	2.15	2.10	2.05	2.01	1.97	1.94	1.92	1.89

# LAMPIRAN AA

## TABEL r

n	Taraf Signifikan		n	Taraf Signifikan		n	Taraf Signifikan	
	5%	1%		5%	1%		5%	1%
3	0,997	0,999	27	0,381	0,487	55	0,266	0,345
4	0,950	0,990	28	0,374	0,478	60	0,254	0,330
5	0,878	0,959	29	0,367	0,470	65	0,244	0,317
6	0,811	0,917	30	0,361	0,463	70	0,235	0,306
7	0,754	0,874	31	0,355	0,456	75	0,227	0,296
8	0,707	0,834	32	0,349	0,449	80	0,220	0,286
9	0,666	0,798	33	0,344	0,442	85	0,213	0,278
10	0,632	0,765	34	0,339	0,436	90	0,207	0,270
11	0,602	0,735	35	0,334	0,430	95	0,202	0,263
12	0,576	0,708	36	0,329	0,424	10	0,195	0,256
13	0,553	0,684	37	0,325	0,418	12	0,176	0,230
14	0,532	0,661	38	0,320	0,413	15	0,159	0,210
15	0,514	0,641	39	0,316	0,408	17	0,148	0,194
16	0,497	0,623	40	0,312	0,403	20	0,138	0,181
17	0,482	0,606	41	0,308	0,398	30	0,113	0,148
18	0,468	0,590	42	0,304	0,393	40	0,098	0,128
19	0,456	0,575	43	0,301	0,389	50	0,088	0,115
20	0,444	0,561	44	0,297	0,384	60	0,080	0,105
21	0,433	0,549	45	0,294	0,380	700	0,074	0,097
22	0,423	0,537	46	0,291	0,376	800	0,070	0,091
23	0,413	0,526	47	0,288	0,372	900	0,065	0,086
24	0,404	0,515	48	0,284	0,368	1000	0,062	0,081
25	0,396	0,505	49	0,281	0,364			
26	0,388	0,496	50	0,279	0,361			



# LAMPIRAN AB

## TABEL T

t Table

cum. prob	t <sub>.50</sub>	t <sub>.75</sub>	t <sub>.80</sub>	t <sub>.85</sub>	t <sub>.90</sub>	t <sub>.95</sub>	t <sub>.975</sub>	t <sub>.99</sub>	t <sub>.995</sub>	t <sub>.999</sub>	t <sub>.9995</sub>
one-tail	0.50	0.25	0.20	0.15	0.10	0.05	0.025	0.01	0.005	0.001	0.0005
two-tails	1.00	0.50	0.40	0.30	0.20	0.10	0.05	0.02	0.01	0.002	0.001
df											
1	0.000	1.000	1.376	1.963	3.078	6.314	12.71	31.82	63.66	318.31	636.62
2	0.000	0.816	1.061	1.386	1.886	2.920	4.303	6.965	9.925	22.327	31.599
3	0.000	0.765	0.978	1.250	1.638	2.353	3.182	4.541	5.841	10.215	12.924
4	0.000	0.741	0.941	1.190	1.533	2.132	2.776	3.747	4.604	7.173	8.610
5	0.000	0.727	0.920	1.156	1.476	2.015	2.571	3.365	4.032	5.893	6.869
6	0.000	0.718	0.906	1.134	1.440	1.943	2.447	3.143	3.707	5.208	5.959
7	0.000	0.711	0.896	1.119	1.415	1.895	2.365	2.998	3.499	4.785	5.408
8	0.000	0.706	0.889	1.108	1.397	1.860	2.306	2.896	3.355	4.501	5.041
9	0.000	0.703	0.883	1.100	1.383	1.833	2.262	2.821	3.250	4.297	4.781
10	0.000	0.700	0.879	1.093	1.372	1.812	2.228	2.764	3.169	4.144	4.587
11	0.000	0.697	0.876	1.088	1.363	1.796	2.201	2.718	3.106	4.025	4.437
12	0.000	0.695	0.873	1.083	1.356	1.782	2.179	2.681	3.055	3.930	4.318
13	0.000	0.694	0.870	1.079	1.350	1.771	2.160	2.650	3.012	3.852	4.221
14	0.000	0.692	0.868	1.076	1.345	1.761	2.145	2.624	2.977	3.787	4.140
15	0.000	0.691	0.866	1.074	1.341	1.753	2.131	2.602	2.947	3.733	4.073
16	0.000	0.690	0.865	1.071	1.337	1.746	2.120	2.583	2.921	3.686	4.015
17	0.000	0.689	0.863	1.069	1.333	1.740	2.110	2.567	2.898	3.646	3.965
18	0.000	0.688	0.862	1.067	1.330	1.734	2.101	2.552	2.878	3.610	3.922
19	0.000	0.688	0.861	1.066	1.328	1.729	2.093	2.539	2.861	3.579	3.883
20	0.000	0.687	0.860	1.064	1.325	1.725	2.086	2.528	2.845	3.552	3.850
21	0.000	0.686	0.859	1.063	1.323	1.721	2.080	2.518	2.831	3.527	3.819
22	0.000	0.686	0.858	1.061	1.321	1.717	2.074	2.508	2.819	3.505	3.792
23	0.000	0.685	0.858	1.060	1.319	1.714	2.069	2.500	2.807	3.485	3.768
24	0.000	0.685	0.857	1.059	1.318	1.711	2.064	2.492	2.797	3.467	3.745
25	0.000	0.684	0.856	1.058	1.316	1.708	2.060	2.485	2.787	3.450	3.725
26	0.000	0.684	0.856	1.058	1.315	1.706	2.056	2.479	2.779	3.435	3.707
27	0.000	0.684	0.855	1.057	1.314	1.703	2.052	2.473	2.771	3.421	3.690
28	0.000	0.683	0.855	1.056	1.313	1.701	2.048	2.467	2.763	3.408	3.674
29	0.000	0.683	0.854	1.055	1.311	1.699	2.045	2.462	2.756	3.396	3.659
30	0.000	0.683	0.854	1.055	1.310	1.697	2.042	2.457	2.750	3.385	3.646
40	0.000	0.681	0.851	1.050	1.303	1.684	2.021	2.423	2.704	3.307	3.551
60	0.000	0.679	0.848	1.045	1.296	1.671	2.000	2.390	2.680	3.232	3.460
80	0.000	0.678	0.846	1.043	1.292	1.664	1.990	2.374	2.639	3.195	3.416
100	0.000	0.677	0.845	1.042	1.290	1.660	1.984	2.364	2.626	3.174	3.390
1000	0.000	0.675	0.842	1.037	1.282	1.646	1.962	2.330	2.581	3.098	3.300
<b>Z</b>	0.000	0.674	0.842	1.036	1.282	1.645	1.960	2.326	2.576	3.090	3.291
	0%	50%	60%	70%	80%	90%	95%	98%	99%	99.8%	99.9%
	Confidence Level										



**LAMPIRAN AC**  
**HASIL UJI STATISTIK *CARR'S INDEX* GRANUL KO-PROSES**  
**ANTAR FORMULA**  
*(One Way Anova)*

**ANOVA**

Carrs index

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	57,130	7	8,161	4,591	,006
Within Groups	28,440	16	1,778		
Total	85,570	23			

Keterangan :

$F_{hitung} (4,591) > F_{tabel (0,05) (7,16)} (2,66)$ , maka  $H_0$  ditolak dan ada perbedaan bermakna antar formula, Rata-rata *Carr's index* granul ko-proses dari kedelapan formula menunjukkan adanya perbedaan yang signifikan antar formula.

**carrsindex**Tukey HSD<sup>a</sup>

formula	N	Subset for alpha = 0.05	
		1	2
f6	3	20,0333	
f2	3	20,2333	
f5	3	20,2667	20,2667
f8	3	20,6667	20,6667
f3	3	22,3000	22,3000
f7	3	23,3000	23,3000
f1	3	23,3333	23,3333
f4	3		24,0333
Sig.		,109	,050

Berdasarkan hasil Uji HSD Tukey dari kedelapan formula , diperoleh nilai  $\text{sig} < \alpha (0,05)$  sehingga  $H_0$  ditolak (\*), yang menunjukkan rata-rata *Carr's index* granul ko-proses dari kedelapan formula memiliki perbedaan yang signifikan antar formula yaitu formula 2 menunjukkan perbedaan yang signifikan terhadap formula 4; formula 4 menunjukkan perbedaan yang signifikan terhadap formula 2, dan formula 6; formula 6 menunjukkan perbedaan yang signifikan terhadap formula 4.

**LAMPIRAN AD**  
**HASIL UJI STATISTIK *HAUSNER RATIO* GRANUL KO-PROSES**  
**ANTAR FORMULA**  
*(One Way Anova)*

**ANOVA**

Hausner ratio

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,014	7	,002	3,595	,016
Within Groups	,009	16	,001		
Total	,023	23			

Keterangan :

$F_{hitung} (3,595) > F_{tabel (0,05) (7,16)} (2,66)$ , maka  $H_0$  ditolak dan ada perbedaan bermakna antar formula, Rata-rata *Hausner ratio* granul ko-proses dari kedelapan formula menunjukkan ada perbedaan yang signifikan antar formula,

Tukey HSD<sup>a</sup>

formula	N	Subset for alpha = 0.05
		1
f6	3	1.2467
f2	3	1.2533
f5	3	1.2533
f8	3	1.2567
f3	3	1.2867
f1	3	1.3000
f7	3	1.3000
f4	3	1.3100
Sig.		.070

Hasil Uji HSD Tukey dari kedelapan formula , diperoleh nilai  $\text{sig} < \alpha$  (0,05) sehingga  $H_0$  ditolak (\*), berarti rata-rata *Hausner ratio* granul ko-proses dari kedelapan formula menunjukkan perbedaan yang signifikan antar formula,

**LAMPIRAN AE**  
**HASIL UJI STATISTIK KEKERASAN TABLET KO-PROSES**  
**ANTAR FORMULA**  
*(One Way Anova)*

**ANOVA**

Kekerasan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3,227	7	,461	1,762	,165
Within Groups	4,185	16	,262		
Total	7,412	23			

Keterangan :

$F_{hitung} (1,762) > F_{tabel (0,05) (7,16)} (2,66)$ , maka  $H_0$  ditolak dan ada perbedaan bermakna antar formula, Rata-rata kekerasan tablet ko-proses dari kedelapan formula menunjukkan tidak ada perbedaan yang signifikan antar formula,

Tukey HSD<sup>a</sup>

formula	N	Subset for alpha = 0.05
		1
F7	3	2.2900
F4	3	2.6733
F3	3	2.7967
F5	3	3.0267
F1	3	3.1033
F8	3	3.3500
F6	3	3.3600
F2	3	3.4000
Sig.		.205

Keterangan :

Dari hasil Uji HSD Tukey dari kedelapan formula , diperoleh nilai  $\text{sig} < \alpha$  (0,05) sehingga  $H_0$  ditolak (\*), rata-rata kekerasan tablet ko-proses dari kedelapan formula menunjukan tidak ada perbedaan yang signifikan antar formula,

**LAMPIRAN AF**  
**HASIL UJI STATISTIK KERAPUHAN TABLET KO-PROSES**  
**ANTAR FORMULA**  
*(One Way Anova)*

**ANOVA**

Kerapuhan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	,297	7	,042	,485	,831
Within Groups	1,401	16	,088		
Total	1,698	23			

Keterangan :

$F_{hitung} (0,485) > F_{tabel (0,05) (7,16)} (2,66)$ , maka  $H_0$  ditolak dan ada perbedaan yang bermakna antar formula, Rata-rata kerapuhan tablet ko-proses dari kedelapan formula menunjukkan tidak ada perbedaan yang signifikan antar formula,

formula	N	Subset for alpha = 0.05
		1
F3	3	.21833
F6	3	.30900
F8	3	.31733
F2	3	.36733
F5	3	.41600
F4	3	.45233
F1	3	.49033
F7	3	.59733
Sig.		.761

Keterangan :

Hasil uji HSD Tukey dari kedelapan formula, diperoleh nilai  $\text{sig} < \alpha (0,05)$  sehingga  $H_0$  ditolak, berarti rata-rata kerapuhan tablet ko-proses dari kedelapan formula menunjukkan tidak ada perbedaan yang signifikan antar formula,



**LAMPIRAN AG**  
**HASIL UJI STATISTIK WAKTU HANCUR TABLET KO-PROSES**  
**ANTAR FORMULA**  
*(One Way Anova)*

**ANOVA**

Waktu hancur

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	18050,345	7	2578,621	2,832	,040
Within Groups	14566,880	16	910,430		
Total	32617,225	23			

Keterangan :

$F_{hitung} (2,832) > F_{tabel (0,05) (7,16)} (2,66)$  maka  $H_0$  ditolak dan ada perbedaan yang bermakna antar formula, Rata-rata waktu hancur tablet ko-proses dari kedelapan formula menunjukkan ada perbedaan yang signifikan antar formula,

formula	N	Subset for alpha = 0.05
		1
F3	3	60.60000
F7	3	76.13333
F5	3	77.60000
F4	3	83.40000
F2	3	100.53333
F1	3	101.60000
F8	3	138.20000
F6	3	141.33333
Sig.		.070

Keterangan :

Hasil Uji HSD Tukey dari kedelapan formula, diperoleh nilai Sig, <  $\alpha$  (0,05) sehingga  $H_0$  ditolak (\*), rata-rata waktu hancur tablet ko-proses dari kedelapan formula menunjukkan ada perbedaan yang signifikan antar formula,

**LAMPIRAN AH**  
**HASIL UJI STATISTIK WAKTU PEMBASAHAN TABLET KO-**  
**PROSES**  
**ANTAR FORMULA**  
*(One Way Anova)*

**ANOVA**

Waktu pembasahan

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	24302,882	7	3471,840	5,096	,003
Within Groups	10901,450	16	681,341		
Total	35204,331	23			

Keterangan :

$F_{hitung} (5,096) > F_{tabel (0,05) (7,16)} (2,66)$  maka  $H_0$  ditolak dan ada perbedaan yang bermakna antar formula, Rata-rata waktu pembasahan tablet ko-proses dari kedelapan formula menunjukkan ada perbedaan yang signifikan antar formula,

### Tukey HSD<sup>a</sup>

formula	N	Subset for alpha = 0.05	
		1	2
F7	3	47.1333	
F5	3	47.7333	
F4	3	54.4000	
F1	3	59.0667	
F2	3	89.3333	89.3333
F3	3	96.4633	96.4633
F8	3	97.2000	97.2000
F6	3		145.0667
Sig.		.327	.220

### Keterangan :

Hasil Uji HSD Tukey dari kedelapan formula , diperoleh nilai Sig,<  $\alpha$  (0,05) sehingga  $H_0$  ditolak (\*), berarti rata-rata waktu pembasahan tablet ko-proses dari kedelapan formula menunjukkan bahwa ada perbedaan yang signifikan antar formula yaitu formula 1 menunjukkan perbedaan yang signifikan terhadap formula 6; formula 4 menunjukkan perbedaan yang signifikan terhadap formula 6; formula 5 menunjukkan perbedaan yang signifikan terhadap formula 6; formula 6 menunjukkan perbedaan yang signifikan terhadap formula 1, formula 4, formula 5, dan formula7; formula 7 menunjukkan perbedaan yang signifikan terhadap formula 6,

**LAMPIRAN AI**  
**HASIL UJI STATISTIK RASIO ABSORPSI AIR TABLET KO-**  
**PROSES**  
**ANTAR FORMULA**  
*(One Way Anova)*

**ANOVA**

Ratio absorpsi

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1117,597	7	159,657	3,500	,018
Within Groups	729,815	16	45,613		
Total	1847,412	23			

Keterangan :

$F_{hitung} (3,500) > F_{tabel (0,05) (7,16)} (2,66)$  maka  $H_0$  ditolak dan ada perbedaan yang bermakna antar formula, Rata-rata rasio absorpsi air tablet ko-proses dari kedelapan formula menunjukkan ada perbedaan yang signifikan antar formula.

Tukey HSD<sup>a</sup>

formula	N	Subset for alpha = 0.05	
		1	2
F6	3	22.5333	
F2	3	29.2567	29.2567
F1	3	34.8100	34.8100
F4	3	35.6100	35.6100
F8	3	37.4167	37.4167
F5	3	38.5467	38.5467
F3	3		43.2200
F7	3		45.1533
Sig.		.137	.142

Keterangan :

Dari hasil Uji HSD Tukey dari kedelapan formula, diperoleh nilai  $\text{sig} < \alpha$  (0,05) sehingga  $H_0$  ditolak (\*), rata-rata kekerasan tablet ko-proses dari kedelapan formula menunjukkan bahwa ada perbedaan yang signifikan antar formula yaitu formula 3 menunjukkan perbedaan yang signifikan terhadap formula 6; formula 6 menunjukkan perbedaan yang signifikan terhadap formula 3, formula dan formula 7; formula 7 menunjukkan perbedaan yang signifikan terhadap formula 6;

**LAMPIRAN AJ**  
**HASIL UJI STATISTIK CARR'S INDEX GRANUL KO-PROSES**  
**FORMULA OPTIMUM**  
*(One-Sample T Test)*

**One-Sample Statistics**

	N	Mean	Std, Deviation	Std, Error Mean
Carrs index	3	19,6733	,60666	,35025

**One-Sample Test**

	Test Value = 17,77					
	t	df	Sig, (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Carrs index	-,933	2	,449	-,32667	-1,8337	1,1804

Keterangan:  $T_{hitung} (-0,933) < T_{tabel (0,05) (2)} (4,303)$ , menunjukkan bahwa nilai *Carr's index* granul ko-proses optimum tidak memiliki perbedaan yang bermakna terhadap hasil teoritis,

**LAMPIRAN AK**  
**HASIL UJI STATISTIK *HAUSNER RATIO* GRANUL KO-PROSES**  
**FORMULA OPTIMUM**  
*(One-Sample T Test)*

**One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
Hausner ratio	3	1,2400	,01000	,00577

**One-Sample Test**

	Test Value = 1,21					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Hausner ratio	,000	2	1,000	,00000	-,0248	,0248

Keterangan:  $T_{hitung} (0,000) < T_{tabel} (0,05) (2) (4,303)$ , menunjukkan nilai *Hausner ratio* granul ko-proses optimum tidak memiliki perbedaan yang bermakna terhadap hasil teoritis,



**LAMPIRAN AL**  
**HASIL UJI STATISTIK KEKERASAN TABLET KO-PROSES**  
**FORMULA OPTIMUM**  
*(One-Sample T test)*

**One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
Kekerasan	3	3,3933	,10693	,06173

**One-Sample Test**

	Test Value = 2,42					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Kekerasan	,054	2	,962	,00333	-,2623	,2690

Keterangan:  $T_{hitung} (0,054) < T_{tabel} (0,05) (2) (4,303)$ , yang menunjukkan kekerasan tablet ko-proses optimum tidak ada perbedaan yang bermakna terhadap hasil teoritis,\,

**LAMPIRAN AM**  
**HASIL UJI STATISTIK KERAPUHAN TABLET KO-PROSES**  
**FORMULA OPTIMUM**  
*(One-Sample T test)*

**One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
kerapuhan	4	,0925	,07455	,03728

**One-Sample Test**

	Test Value = 0,6934					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
kerapuhan	-7,176	3	,006	-,26750	-,3861	-,1489

Keterangan:  $T_{hitung} (-7,176) < T_{tabel (0,05) (2)} (4,303)$ , yang menunjukkan kerapuhan tablet ko-proses optimum tidak ada perbedaan yang bermakna terhadap hasil teoritis,

**LAMPIRAN AN**  
**HASIL UJI STATISTIK WAKTU HANCUR TABLET KO-PROSES**  
**FORMULA OPTIMUM**  
*(One-Sample T test)*

**One-Sample Statistics**

	N	Mean	Std, Deviation	Std, Error Mean
Waktu hancur	3	99,0667	,50332	,29059

**One-Sample Test**

	Test Value = 95,52					
	t	df	Sig, (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Waktu hancur	-7,204	2	,019	-2,09333	-3,3437	-,8430

Keterangan:  $T_{hitung} (-7,204) < T_{tabel (0,05) (2)} (4,303)$ , yang menunjukkan waktu hancur tablet ko-proses optimum tidak ada perbedaan yang bermakna terhadap hasil teoritis,

**LAMPIRAN AO**  
**HASIL UJI STATISTIK WAKTU PEMBASAHAN TABLET KO-**  
**PROSES**  
**FORMULA OPTIMUM**  
*(One-Sample T test)*

**One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
Waktu pembasahan	3	94,2000	1,70880	,98658

**One-Sample Test**

	Test Value = 369,81					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Waktu pembasahan	-,517	2	,657	-,51000	-4,7549	-,517

Keterangan:  $T_{hitung} (-0,517) > T_{tabel (0,05) (2)} (4,303)$ , yang menunjukkan waktu pembasahan tablet ko-proses optimum tidak ada perbedaan bermakna terhadap hasil teoritis,

**LAMPIRAN AP**  
**HASIL UJI STATISTIK RASIO ABSORPSI AIR TABLET KO-**  
**PROSES**  
**FORMULA OPTIMUM**  
*(One-Sample T test)*

**One-Sample Statistics**

	N	Mean	Std. Deviation	Std. Error Mean
Ratio absorpsi	3	29,9667	,43155	,24915

**One-Sample Test**

	Test Value = 36,27					
	t	df	Sig, (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Ratio absorpsi	1,030	2	,411	,25667	-,8154	1,3287

Keterangan:  $T_{hitung} (1,07)0 < T_{tabel (0,05) (2)} (4,303)$ , yang menunjukkan rasio absorpsi air tablet ko-proses optimum tidak ada perbedaan yang bermakna terhadap hasil teoritis,

**LAMPIRAN AQ**  
**HASIL UJI STATISTIK STABILITAS TABLET KO-PROSES**  
**OPTIMUM**  
*(Independent Samples test)*

Hasil Uji Stabilitas Kekerasan Tablet Ko-proses

Group Statistics					
Faktor		N	Mean	Std. Deviation	Std. Error Mean
Kekerasan	sebelum	3	3,3933	,10693	,06173
	sesudah	3	12,1700	15,37195	8,87500

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
		Kekerasan	Equal variances assumed	15,789	,016	-,989	4	,379	-8,77667	8,87522
	Equal variances not assumed			-,989	2,000	,427	-8,77667	8,87522	-,46,96009	29,40676

Keterangan:  $T_{hitung} (-0,989) < T_{tabel (0,05) (4)} (2,776)$ , yang menunjukkan kekerasan tablet ko-proses optimum tidak memiliki perbedaan yang bermakna sebelum dan setelah uji stabilitas.

## Hasil Uji Stabilitas Kerapuhan Tablet Ko-proses

**Group Statistics**

Faktor		N	Mean	Std. Deviation	Std. Error Mean
kerapuhan	Sebelum	3	,1233	,05132	,02963
	Sesudah	3	,0800	,01732	,01000

**Independent Samples Test**

	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper
kerapuhan Equal variances assumed	3,408	,139	1,386	4	,238	,04333	,03127	- ,04348	,13015
			1,386	2,450	,278	,04333	,03127	- ,07010	,15676
kerapuhan Equal variances not assumed									

Keterangan:  $T_{hitung} (1,386) < T_{tabel (0,05) (4)} (2,776)$ , menunjukkan kerapuhan tablet ko-proses optimum tidak ada perbedaan yang bermakna sebelum dan setelah uji stabilitas,

## Hasil Uji Stabilitas Waktu Hancur Tablet Ko-proses

**Group Statistics**

Faktor		N	Mean	Std. Deviation	Std. Error Mean
Waktu hancur	sebelum	3	99,0667	,50332	,29059
	sesudah	3	99,0667	,41633	,24037

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means							
										95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
Waktu_hancur	Equal variances assumed	,065	,812	,000	4	1,000	,00000	,37712	-	1,04706	1,04706
	Equal variances not assumed			,000	3,864	1,000	,00000	,37712	-	1,06174	1,06174

Keterangan:  $T_{hitung} (0,000) < T_{tabel (0,05) (4)} (2,776)$ , menunjukkan waktu hancur tablet ko-proses optimum tidak ada perbedaan yang bermakna sebelum dan setelah uji stabilitas,



## Hasil Uji Stabilitas Waktu Pembasahan Tablet Ko-proses

**Group Statistics**

	Faktor	N	Mean	Std. Deviation	Std. Error Mean
Waktu pembasahan	sebelum	3	94,2000	1,70880	,98658
	sesudah	3	93,0000	1,05830	,61101

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
										95% Confidence Interval of the Difference
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Waktu pembasahan	Equal variances assumed	,522	,510	1,034	4	,360	1,20000	1,16046	-2,02195	4,42195
	Equal variances not assumed			1,034	3,337	,370	1,20000	1,16046	-2,29057	4,69057

Keterangan:  $T_{hitung} (0,510) < T_{tabel (0,05) (4)} (2,776)$ , menunjukkan waktu pembasahan tablet ko-proses optimum tidak ada perbedaan yang bermakna sebelum dan setelah uji stabilitas,

## Hasil Uji Stabilitas Rasio Absorpsi Air Tablet Ko-proses

**Group Statistics**

Faktor		N	Mean	Std. Deviation	Std. Error Mean
Rasio absorpsi	sebelum	3	30,0000	,41940	,24214
	sesudah	3	29,6933	,32578	,18809

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
										95% Confidence Interval of the Difference
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Rasio absorpsi	Equal variances assumed	,145	,723	1,000	4	,374	,30667	,30661	-,54463	1,15796
	Equal variances not assumed			1,000	3,769	,377	,30667	,30661	-,56557	1,17890

Keterangan:  $T_{hitung} (1,000) < T_{tabel (0,05) (4)} (2,776)$ , menunjukkan rasio absorpsi air tablet ko-proses optimum tidak memiliki perbedaan yang bermakna sebelum dan setelah uji stabilitas,

**LAMPIRAN AR**  
**HASIL UJI STATISTIK STABILITAS TABLET ODT**  
**DOMPERIDONE**  
*(Independent-Sample T test)*

Hasil Stabilitas Uji Kekerasan Tablet ODT

Group Statistics					
	Faktor	N	Mean	Std. Deviation	Std. Error Mean
Kekerasan	sebelum	3	3,2867	,02082	,01202
	sesudah	3	3,2667	,02517	,01453

Independent Samples Test									
	Levene's Test for Equality of Variances		t-test for Equality of Means						
								95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Kekerasan Equal variances assumed	,065	,812	1,061	4	,349	,02000	,01886	-,03235	,07235
			1,061	3,864	,351	,02000	,01886	-,03309	,07309
Equal variances not assumed									

Keterangan:  $T_{hitung} (1,061) < T_{tabel (0,05) (4)} (2,776)$ , menunjukkan kekerasan tablet ODT domperidone tidak ada perbedaan yang bermakna sebelum dan setelah uji stabilitas,

## Hasil Uji Stabilitas Kerapuhan Tablet ODT Domperidone

**Group Statistics**

Faktor		N	Mean	Std. Deviation	Std. Error Mean
kerapuhan	sebelum	3	,1267	,05686	,03283
	sesudah	3	,1267	,04726	,02728

**Independent Samples Test**

	Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
kerapuhan Equal variances assumed	,149	,719	,000	4	,149	,719	,000	4	,11852
Equal variances not assumed			,000	3,870			,000	3,870	,12010

Keterangan:  $T_{hitung} (0,000) < T_{tabel (0,05) (4)} (2,776)$ , menunjukkan kerapuhan tablet ODT domperidone tidak memiliki perbedaan yang bermakna sebelum dan setelah uji stabilitas,

## Hasil Uji Stabilitas Waktu Hancur Tablet ODT Domperidone

**Group Statistics**

Faktor	N	Mean	Std. Deviation	Std. Error Mean
Waktu hancur sebelum	3	188,7333	4,84286	2,79603
sesudah	3	195,1333	5,46016	3,15242

**Independent Samples Test**

	Levene's Test for Equality of Variances		t-test for Equality of Means							
									95% Confidence Interval of the Difference	
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
Waktu Equal hancur variances assumed	,107	,760	-1,519	4	,203	-6,40000	4,21373	-	18,09920	5,29920
Equal variances not assumed			-1,519	3,944	,204	-6,40000	4,21373	-	18,16527	5,36527

Keterangan:  $T_{hitung} (1,519) < T_{tabel (0,05) (4)} (2,776)$ , menunjukkan waktu hancur tablet ODT domperidone tidak ada perbedaan yang bermakna sebelum dan setelah uji stabilitas,

## Hasil Uji Stabilitas Waktu Pembasahan Tablet ODT Domperidone

**Group Statistics**

	Faktor	N	Mean	Std. Deviation	Std. Error Mean
Waktu pembasahan	sebelum	3	199,0000	2,83549	1,63707
	sesudah	3	203,4667	6,02107	3,47627

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
										95% Confidence Interval of the Difference
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Waktu pembasahan	Equal variances assumed	2,299	,204	-1,162	4	,310	-4,46667	3,84245	-15,13503	6,20169
	Equal variances not assumed			-1,162	2,846	,333	-4,46667	3,84245	-17,07938	8,14605

Keterangan:  $T_{hitung} (1,162) < T_{tabel (0,05) (4)} (2,776)$ , menunjukkan waktu pembasahan tablet ODT domperidone tidak ada perbedaan yang bermakna sebelum dan setelah uji stabilitas,

Hasil Uji Stabilitas Rasio Absorpsi Air Tablet ODT Domperidone

Group Statistics

Faktor		N	Mean	Std. Deviation	Std. Error Mean
Ratio Absorpsi	sebelum	3	54,1367	4,69324	2,70965
	sesudah	3	53,6000	1,22491	,70720

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
										95% Confidence Interval of the Difference
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Ratio Absorpsi	Equal variances assumed	7,896	,048	,192	4	,857	,53667	2,80041	-7,23853	8,31186
	Equal variances not assumed			,192	2,271	,864	,53667	2,80041	-10,23350	11,30684

Keterangan:  $T_{hitung} (0,192) < T_{tabel (0,05) (4)} (2,776)$ , menunjukkan rasio absorpsi air tablet ODT domperidone tidak berbeda bermakna sebelum dan setelah uji stabilitas,

**LAMPIRAN AS**

**HASIL UJI STATISTIK PENETAPAN KADAR**

**ODT DOMPERIDONE DALAM PELARUT HCl 0,1 N**

**(One Way Anova)**

**Descriptives**

Penetapan kadar

	N	Mean	Std, Deviation	Std, Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Formula_ODT	3	96,8367	1,98681	1,14709	91,9011	101,7722	94,56	98,22
Pembanding_1	3	99,2333	,64291	,37118	97,6363	100,8304	98,50	99,70
Pembanding_2	3	98,8667	1,78979	1,03333	94,4206	103,3127	96,90	100,40
Total	9	98,3122	1,77227	,59076	96,9499	99,6745	94,56	100,40

**Test of Homogeneity of Variances**

Penetapan kadar

Levene Statistic	df1	df2	Sig,
2,276	2	6	,184

**ANOVA**

Penetapan kadar

	Sum of Squares	df	Mean Square	F	Sig,
Between Groups	9,999	2	5,000	1,983	,218
Within Groups	15,128	6	2,521		
Total	25,128	8			



Keterangan :

$F_{hitung} (1,983) > F_{tabel} (0,05) (2,6) (5,14)$  maka hipotesa 0 ditolak dan hasil penetapan kadar memiliki perbedaan bermakna antar formula ODT hasil percobaan dengan tablet pembanding,

### Multiple Comparisons

Penetapan kadar

Dunnnett t (2-sided)<sup>a</sup>

(I) Formula	(J) Formula	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Pembanding 1	Formula ODT	2,39667	1,29650	,190	-1,3149	6,1082
Pembanding 2	Formula ODT	2,03000	1,29650	,274	-1,6816	5,7416

a, Dunnnett t-tests treat one group as a control, and compare all other groups against it,

\*, The mean difference is significant at the 0,05 level,

Keterangan :

Hasil Uji Dunnnett dari ketiga formula, diperoleh nilai  $Sig. < \alpha (0,05)$  sehingga  $H_0$  ditolak (\*), berarti rata-rata penetapan kadar dari ketiga formula menunjukkan bahwa tidak ada perbedaan yang signifikan antar formula,

**LAMPIRAN AT**  
**HASIL UJI STATISTIK PERSEN OBAT TERLEPAS TABLET**  
**ODT DOMPERIDONE PADA t = 30 MENIT**  
*(One Way Anova)*

**Descriptives**

%Obat terlepas

	N	Mean	Std, Deviation	Std, Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower	Upper		
					Bound	Bound		
Formula_ODT	3	81,7933	1,28103	,73960	78,6111	84,9756	80,59	83,14
Pembanding_1	3	72,4433	2,29531	1,32520	66,7415	78,1452	70,56	75,00
Pembanding_2	3	69,8333	1,15249	,66539	66,9704	72,6963	68,55	70,78
Total	9	74,6900	5,63196	1,87732	70,3609	79,0191	68,55	83,14

**Test of Homogeneity of Variances**

%Obat terlepas

Levene Statistic	df1	df2	Sig.
1,309	2	6	,337

## ANOVA

%Obat terlepas

	Sum of Squares	df	Mean Square	F	Sig,
Between Groups	237,276	2	118,638	43,206	,000
Within Groups	16,475	6	2,746		
Total	253,752	8			

Keterangan :

$F_{hitung} (43,206) > F_{tabel (0,05) (2,6)} (5,14)$  maka  $H_0$  ditolak dan menunjukkan persen obat terlepas memiliki perbedaan yang bermakna antar formula ODT hasil percobaan dengan tablet pembanding,

## Multiple Comparisons

%Obat terlepas

Dunnett t (2-sided)<sup>a</sup>

(J) (I) Formula Formula	Mean Difference (I-J)	Std, Error	Sig,	95% Confidence Interval	
				Lower Bound	Upper Bound
Pembanding Formula 1 ODT	11,96000*	1,35300	,000	8,0867	15,8333*
Pembanding Formula 2 ODT	2,61000	1,35300	,171	-1,2633	6,4833

a, Dunnett t-tests treat one group as a control, and compare all other groups against it,

### Multiple Comparisons

%Obat terlepas

Dunnett t (2-sided)<sup>a</sup>

(J) (I) Formula Formula	Mean Difference (I-J)	Std, Error	Sig,	95% Confidence Interval	
				Lower Bound	Upper Bound
Pembanding Formula 1 ODT	11,96000*	1,35300	,000	8,0867	15,8333*
Pembanding Formula 2 ODT	2,61000	1,35300	,171	-1,2633	6,4833

a, Dunnett t-tests treat one group as a control, and compare all other groups against it,

\*, The mean difference is significant at the 0,05 level,

Keterangan :

Hasil Uji Dunnett dari ketiga formula , diperoleh nilai Sig, <  $\alpha$  (0,05) sehingga Ho ditolak (\*), berarti rata-rata % obat terlepas dari ketiga formula menunjukkan bahwa ada perbedaan yang signifikan antar formula yaitu formula ODT dengan masing- masing pembanding menunjukkan perbedaan yang signifikan,

**LAMPIRAN AU**

**HASIL UJI STATISTIK PERSEN EFISIENSI DISOLUSI**

**TABLET ODT DOMPERIDONE**

*(One Way Anova)*

**Descriptives**

Efisiensi Disolusi

	N	Mean	Std, Deviation	Std, Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower	Upper		
					Bound	Bound		
Formula_ODT	3	74,7633	1,20268	,69437	71,7757	77,7510	73,42	75,74
Pembanding_1	3	64,6333	,69644	,40209	62,9033	66,3634	64,14	65,43
Pembanding_2	3	60,0133	,78309	,45212	58,0680	61,9586	59,11	60,50
Total	9	66,4700	6,58230	2,19410	61,4104	71,5296	59,11	75,74

**Test of Homogeneity of Variances**

Efisiensi Disolusi

Levene Statistic	df1	df2	Sig.
,897	2	6	,456

## ANOVA

### Efisiensi Disolusi

	Sum of Squares	df	Mean Square	F	Sig,
Between Groups	341,524	2	170,762	201,315	,000
Within Groups	5,089	6	,848		
Total	346,613	8			

Keterangan :

$F_{hitung} (201,315) > F_{tabel} (0,05) (2,6) (5,14)$  maka  $H_0$  ditolak dan ada perbedaan yang bermakna antar formula ODT hasil percobaan dengan tablet pembanding pada persen efisiensi disolusi ODT domperidone,

### Multiple Comparisons

Efisiensi Disolusi

Dunnett t (2-sided)<sup>a</sup>

(J) (I) Formula Formula	Mean Difference (I-J)	Std, Error	Sig,	95% Confidence Interval	
				Lower Bound	Upper Bound
Pembanding Formula 1 ODT	- 10,13000*	,75199	,000	-12,2828	-7,9772*
Pembanding Formula 2 ODT	- 14,75000*	,75199	,000	-16,9028	- 12,5972*

a, Dunnett t-tests treat one group as a control, and compare all other groups against it,

\*, The mean difference is significant at the 0,05 level,

Keterangan :

Hasil Uji Dunnett dari ketiga formula , diperoleh nilai Sig,<  $\alpha$  (0,05) sehingga Ho ditolak (\*), berarti rata-rata % efisiensi disolusi dari ketiga formula menunjukkan bahwa ada perbedaan yang signifikan antar formula yaitu formula ODT dengan masing- masing pembanding menunjukkan perbedaan yang signifikan,

**LAMPIRAN AV**

**UJI F KURVA BAKU DENGAN HCl 0,1 N UNTUK UJI**

**PENETAPAN KADAR DOMPERIDONE**

Replikasi	C <sub>(ppm)</sub>	Abs	X <sup>2</sup>	Y <sup>2</sup>	XY
I	2,04	0,081	4,1616	0,0066	0,16524
	4,08	0,141	16,6464	0,0199	0,57528
	6,12	0,191	37,4544	0,0365	1,16892
	8,16	0,253	66,5856	0,0640	2,06448
	10,20	0,314	104,0400	0,0986	3,2028
	12,24	0,374	149,8176	0,1399	4,57776
	14,28	0,431	203,9184	0,1858	6,15468
Total			582,6240	0,5512	17,9092
II	2,02	0,078	4,0643	0,0061	0,157248
	4,03	0,139	16,2570	0,0193	0,560448
	6,05	0,204	36,5783	0,0416	1,233792
	8,06	0,270	65,0281	0,0729	2,17728
	10,08	0,327	101,6064	0,1069	3,29616
	12,09	0,386	146,3132	0,1490	4,669056
	14,11	0,442	199,1485	0,1954	6,237504
Total			568,9958	0,5912	18,3315
III	2,02	0,078	4,0643	0,0061	0,157248
	4,03	0,135	16,2570	0,0182	0,54432
	6,05	0,185	36,5783	0,0342	1,11888
	8,06	0,252	65,0281	0,0635	2,032128
	10,08	0,307	101,6064	0,0942	3,09456
	12,09	0,359	146,3132	0,1289	4,342464
	14,11	0,422	199,1485	0,1781	5,955264
Total			568,9958	0,5233	17,2449

**Persamaan regresi :**

Replikasi I :  $y = 0,0287x + 0,0209$  ( $r_{hitung} / r_{tabel} = 0,9997 / 0,754$ )

Replikasi II :  $y = 0,0303x + 0,0196$  ( $r_{hitung} / r_{tabel} = 0,9993 / 0,754$ )

Replikasi III :  $y = 0,0284x + 0,0194$  ( $r_{hitung} / r_{tabel} = 0,9996 / 0,754$ )



	Jumlah X <sup>2</sup>	Jumlah XY	Jumlah Y <sup>2</sup>	n	Residual SS	Residual DF
Pers, Reg, I	582,984	17,909	0,551	7	8,4377 , 10 <sup>-4</sup>	5
Pers, Reg, II	568,996	18,331	0,591	7	4,4126 , 10 <sup>-4</sup>	5
Pers, Reg, III	568,996	17,245	0,523	7	3,4250 , 10 <sup>-4</sup>	5
Pooled reg,					16,2753 , 10 <sup>-4</sup>	15
Common reg,	1720,976	53,485	1,665		2,7770, 10 <sup>-3</sup>	17

$$SS1 = \sum (Y^2) - \frac{(XY)^2}{(Y^2)} = 0,551 - \frac{(17,909)^2}{582,984} = 8,4377 , 10^{-4}$$

$$SS2 = \sum (Y^2) - \frac{(XY)^2}{(Y^2)} = 0,591 - \frac{(18,33)^2}{568,996} = 4,4126 , 10^{-4}$$

$$SS3 = \sum (Y^2) - \frac{(XY)^2}{(Y^2)} = 0,523 - \frac{(17,245)^2}{568,996} = 3,4259 , 10^{-4}$$

$$SSe = \text{Common regression} = 1,665 - \frac{(53,486)^2}{1720,976} = 2,777 , 10^{-4}$$

$$F_{hitung} = \frac{2,777 , 10^{-4} - 16,2753 , 10^{-4}}{5 - 1} \times \frac{15}{16,2753 , 10^{-4}}$$

$$= \frac{2,777 , 10^{-4} - 16,2753 , 10^{-4}}{1,08502 , 10^{-4}}$$

$$= 2,6485 < F_{(0,05) (2,15)} = 3,68$$

## LAMPIRAN AW

### HASIL UJI ANAVA *CARR'S INDEX* DENGAN *DESIGN EXPERT*

Response 2 carrs index

ANOVA for selected factorial model

Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	p-value Prob > F	
Model	56,53333	7	8,07619	4,52659	0,0059	significant
A-PVPK-30	51,04167	1	51,04167	28,60813	< 0,0001	
B-VIVASOL	0,106667	1	0,106667	0,059785	0,8099	
C-MANITOL	2,281667	1	2,281667	1,278842	0,2748	
AB	2,041667	1	2,041667	1,144325	0,3006	
AC	0,96	1	0,96	0,538066	0,4738	
BC	0,041667	1	0,041667	0,023354	0,8805	
ABC	0,06	1	0,06	0,033629	0,8568	
Pure Error	28,54667	16	1,784167			
Cor Total	85,08	23				

The Model F-value of 4,53 implies the model is significant, There is only

a 0,59% chance that a "Model F-Value" this large could occur due to noise,

Values of "Prob > F" less than 0,0500 indicate model terms are significant,

In this case A are significant model terms,

Values greater than 0,1000 indicate the model terms are not significant,

If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model,

Std, Dev,	1,335727	R-Squared	0,664473
Mean	21,7	Adj R-Squared	0,517679
C,V, %	6,155424	Pred R-Squared	0,245063
PRESS	64,23	Adeq Precision	5,230064

The "Pred R-Squared" of 0,2451 is not as close to the "Adj R-Squared" of 0,5177 as one might normally expect, This may indicate a large block effect or a possible problem with your model and/or data, Things to consider are model reduction, response tranformation, outliers, etc,

"Adeq Precision" measures the signal to noise ratio, A ratio greater than 4 is desirable, Your ratio of 5,230 indicates an adequate signal, This model can be used to navigate the design space,

Factor	Coefficient		Standard Error	95% CI		VIF
	Estimate	df		Low	High	
Intercept	21,7	1	0,272654	21,122	22,278	
A-PVPK-30	-1,45833	1	0,272654	-2,03633	-0,88033	1
B-VIVASOL	-0,06667	1	0,272654	-0,64467	0,511334	1
C-MANITOL	0,308333	1	0,272654	-0,26967	0,886334	1
AB	0,291667	1	0,272654	-0,28633	0,869668	1
AC	-0,2	1	0,272654	-0,778	0,378001	1
BC	0,041667	1	0,272654	-0,53633	0,619668	1
ABC	0,05	1	0,272654	-0,528	0,628001	1

Final Equation in Terms of Coded Factors:

$$\begin{aligned}
 \text{carrs index} &= 21,7 \\
 &-1,45833 * A \\
 &-0,06667 * B \\
 &0,308333 * C \\
 &0,291667 * A * B \\
 &-0,2 * A * C \\
 &0,041667 * B * C \\
 &0,05 * A * B * C
 \end{aligned}$$

Final Equation in Terms of Actual Factors:

$$\begin{aligned}
 \text{carrs index} &= \\
 &21,7 \\
 &-1,45833 * \text{PVPK-30} \\
 &-0,06667 * \text{VIVASOL} \\
 &0,308333 * \text{MANITOL} \\
 &0,291667 * \text{PVPK-30} * \text{VIVASOL} \\
 &-0,2 * \text{PVPK-30} * \text{MANITOL} \\
 &0,041667 * \text{VIVASOL} * \text{MANITOL} \\
 &0,05 * \text{PVPK-30} * \text{VIVASOL} * \text{MANITOL}
 \end{aligned}$$

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node,  
In the Diagnostics Node, Select Case Statistics from the View Menu,

Proceed to Diagnostic Plots (the next icon in progression), Be sure to look at the:

- 1) Normal probability plot of the studentized residuals to check for normality of residuals,
- 2) Studentized residuals versus predicted values to check for constant error,
- 3) Externally Studentized Residuals to look for outliers, i.e., influential values,
- 4) Box-Cox plot for power transformations,

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon,

# LAMPIRAN AX

## HASIL UJI ANAVA HAUSNER RATIO DENGAN DESIGN EXPERT

Response 1 hausner ratio

ANOVA for selected factorial model

Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	p-value	
Model	0,014529167	7	0,002076	3,745435	0,0136	
A-PVPK-30	0,0135375	1	0,013538	24,42857	0,0001	significant
B- VIVASOL	3,75E-05	1	3,75E-05	0,067669	0,7981	
C- MANITOL	0,000204167	1	0,000204	0,368421	0,5524	
AB	0,000504167	1	0,000504	0,909774	0,3544	
AC	0,000204167	1	0,000204	0,368421	0,5524	
BC	3,75E-05	1	3,75E-05	0,067669	0,7981	
ABC	4,16667E-06	1	4,17E-06	0,007519	0,9320	
Pure Error	0,008866667	16	0,000554			
Cor Total	0,023395833	23				

The Model F-value of 3,75 implies the model is significant, There is only a 1,36% chance that a "Model F-Value" this large could occur due to noise, Values of "Prob > F" less than 0,0500 indicate model terms are significant, In this case A are significant model terms, Values greater than 0,1000 indicate the model terms are not significant, If there are many insignificant model terms (not counting those required to support hierarchy),

model reduction may improve your model,

Std, Dev,	0,023540745	R-Squared	0,621015
Mean	1,275416667	Adj R-Squared	0,455209
C, V, %	1,845729747	Pred R-Squared	0,147284
PRESS	0,01995	Adeq Precision	4,659859

The "Pred R-Squared" of 0,1473 is not as close to the "Adj R-Squared" of 0,4552 as one might

normally expect, This may indicate a large block effect or a possible problem with your model

and/or data, Things to consider are model reduction, response tranformation, outliers, etc, "Adeq Precision" measures the signal to noise ratio, A ratio greater than 4 is desirable, Your ratio of 4,660 indicates an adequate signal, This model can be used to navigate the design space,

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	1,275416667	1	0,004805	1,26523	1,285603	
A-PVPK-30	-0,02375	1	0,004805	-0,03394	-0,01356	
B-						
VIVASOL	-0,00125	1	0,004805	-0,01144	0,008937	1
C-						
MANITOL	0,002916667	1	0,004805	-0,00727	0,013103	1
AB	0,004583333	1	0,004805	-0,0056	0,01477	1
AC	-0,00291667	1	0,004805	-0,0131	0,00727	1
BC	0,00125	1	0,004805	-0,00894	0,011437	1
ABC	0,000416667	1	0,004805	-0,00977	0,010603	1
						1

Final Equation in Terms of Coded Factors:

$$\begin{aligned} \text{hausner ratio} &= \\ &1,275416667 \\ &\quad -0,02375 \quad * A \\ &\quad -0,00125 \quad * B \\ &\quad 0,002916667 \quad * C \\ &\quad 0,004583333 \quad * A * B \\ &\quad -0,00291667 \quad * A * C \\ &\quad 0,00125 \quad * B * C \\ &\quad 0,000416667 \quad * A * B * C \end{aligned}$$

Final Equation in Terms of Actual Factors:

$$\begin{aligned} \text{hausner ratio} &= \\ &1,275416667 \\ &\quad -0,02375 \quad * \text{PVPK-30} \\ &\quad -0,00125 \quad * \text{VIVASOL} \\ &\quad 0,002916667 \quad * \text{MANITOL} \\ &\quad 0,004583333 \quad * \text{PVPK-30} * \text{VIVASOL} \\ &\quad -0,00291667 \quad * \text{PVPK-30} * \text{MANITOL} \\ &\quad 0,00125 \quad * \text{VIVASOL} * \text{MANITOL} \\ &\quad 0,000416667 \quad * \text{PVPK-30} * \text{VIVASOL} * \text{MANITOL} \end{aligned}$$

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node,  
In the Diagnostics Node, Select Case Statistics from the View Menu,

Proceed to Diagnostic Plots (the next icon in progression), Be sure to look at the:

- 1) Normal probability plot of the studentized residuals to check for normality of residuals,
- 2) Studentized residuals versus predicted values to check for constant error,
- 3) Externally Studentized Residuals to look for outliers, i.e., influential values,
- 4) Box-Cox plot for power transformations,

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon,

## LAMPIRAN AY

### HASIL UJI ANAVA KERAPUHAN DENGAN *DESIGN EXPERT*

Response 4 kerapuhan  
ANOVA for selected factorial model

Analysis of variance table [Partial sum of squares - Type III]

	Sum of		Mean	F	P- value	
Source	Squares	df	Square	Value	Prob > F	
Model	0,182822	7	0,026117	1,171260666	0,3715	not significant
A-PVPK-30 B- VIVASOL C- MANITOL	4,27E-05	1	4,27E-05	0,001913429	0,9657	
AB	0,0602	1	0,0602	2,699735596	0,1199	
AC	0,007633	1	0,007633	0,342294433	0,5667	
BC	0,098304	1	0,098304	4,408539422	0,0520	
ABC	0,0105	1	0,0105	0,470890286	0,5024	
Pure Error	0,000561	1	0,000561	0,025143647	0,8760	
Cor Total	0,005582	1	0,005582	0,250307849	0,6237	
	0,356777	16	0,022299			
	0,539599	23				

The "Model F-value" of 1,17 implies the model is not significant relative to the noise, There is a 37,15 % chance that a "Model F-value" this large could occur due to noise,

Values of "Prob > F" less than 0,0500 indicate model terms are significant,

In this case there are no significant model terms,

Values greater than 0,1000 indicate the model terms are not significant,

If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model,

Std, Dev,	0,149327	R-Squared	0,338810863
Mean	0,35425	Adj R-Squared	0,049540615

C,V, %	42,15299	Pred R-Squared	0,487675559
PRESS	0,802748	Adeq Precision	3,11241158

A negative "Pred R-Squared" implies that the overall mean is a better predictor of your response than the current model,

"Adeq Precision" measures the signal to noise ratio, A ratio of 3,11 indicates an inadequate signal and we should not use this model to navigate the design space,

Factor	Coefficient		Standard Error	95% CI		VIF
	Estimate	df		Low	High	
Intercept	0,35425	1	0,030481	0,289632661	0,418867339	
A-PVPK-30	-0,00133	1	0,030481	-0,065950672	0,063284006	1
B-VIVASOL	-0,05008	1	0,030481	-0,114700672	0,014534006	1
C-MANITOL	-0,01783	1	0,030481	-0,082450672	0,046784006	1
AB	0,064	1	0,030481	-0,000617339	0,128617339	1
AC	-0,02092	1	0,030481	-0,085534006	0,043700672	1
BC	0,004833	1	0,030481	-0,059784006	0,069450672	1
ABC	-0,01525	1	0,030481	-0,079867339	0,049367339	1

Final Equation in Terms of Coded Factors:

$$\begin{aligned} \text{kerapuhan} = & 0,35425 \\ & -0,00133 * A \\ & -0,05008 * B \\ & -0,01783 * C \\ & 0,064 * A * B \\ & -0,02092 * A * C \\ & 0,004833 * B * C \\ & -0,01525 * A * B * C \end{aligned}$$

Final Equation in Terms of Actual Factors:

$$\begin{aligned} \text{kerapuhan} = & 0,35425 \\ & -0,00133 * \text{PVPK-30} \\ & -0,05008 * \text{VIVASOL} \\ & -0,01783 * \text{MANITOL} \\ & 0,064 * \text{PVPK-30} * \text{VIVASOL} \\ & -0,02092 * \text{PVPK-30} * \text{MANITOL} \\ & 0,004833 * \text{VIVASOL} * \text{MANITOL} \\ & -0,01525 * \text{PVPK-30} * \text{VIVASOL} * \text{MANITOL} \end{aligned}$$

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node,  
In the Diagnostics Node, Select Case Statistics from the View Menu,

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- 4) Box-Cox plot for power transformations,

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon,

## LAMPIRAN AZ

### HASIL UJI ANAVA KEKERASAN DENGAN *DESIGN EXPERT*

Response 3 kekerasan

ANOVA for selected factorial model

Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	p-value Prob > F	
Model	3,226933	7	0,46099	1,762421	0,1646	not significant
A-PVPK-30	1,938017	1	1,938017	7,409265	0,0151	
B-VIVASOL	0,432017	1	0,432017	1,65165	0,2170	
C-MANITOL	0,160067	1	0,160067	0,611954	0,4455	
AB	0,035267	1	0,035267	0,134829	0,7183	
AC	0,55815	1	0,55815	2,133873	0,1634	
BC	0,030817	1	0,030817	0,117816	0,7359	
ABC	0,0726	1	0,0726	0,277558	0,6055	
Pure Error	4,185067	16	0,261567			
Cor Total	7,412	23				

The "Model F-value" of 1,76 implies the model is not significant relative to the noise, There is a 16,46 % chance that a "Model F-value" this large could occur due to noise,

Values of "Prob > F" less than 0,0500 indicate model terms are significant,

In this case A are significant model terms,

Values greater than 0,1000 indicate the model terms are not significant,

If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model,

Std. Dev,	0,511436	R-Squared	0,435366
Mean	3	Adj R-Squared	0,188339
C, V, %	17,04786	Pred R-Squared	-0,27043
PRESS	9,4164	Adeq Precision	3,759174

A negative "Pred R-Squared" implies that the overall mean is a better predictor of your response than the current model,

"Adeq Precision" measures the signal to noise ratio, A ratio of 3,76 indicates an inadequate signal and we should not use this model to navigate the design space,

Factor	Coefficient		Standard Error	95% CI		VIF
	Estimate	df		Low	High	
Intercept	3	1	0,104396	2,778689	3,221311	
A-PVPK-30	0,284167	1	0,104396	0,062856	0,505477	1
B-VIVASOL	-0,13417	1	0,104396	-0,35548	0,087144	1
C-MANITOL	-0,08167	1	0,104396	-0,30298	0,139644	1
AB	0,038333	1	0,104396	-0,18298	0,259644	1
AC	0,1525	1	0,104396	-0,06881	0,373811	1
BC	0,035833	1	0,104396	-0,18548	0,257144	1
ABC	0,055	1	0,104396	-0,16631	0,276311	1



Final Equation in Terms of Coded Factors:

kekerasan	=	
3		
0,284167		* A
-0,13417		* B
-0,08167		* C
0,038333		* A * B
0,1525		* A * C
0,035833		* B * C
0,055		* A * B * C

Final Equation in Terms of Actual Factors:

kekerasan	=	
3		
0,284167		* PVPK-30
-0,13417		* VIVASOL
-0,08167		* MANITOL
0,038333		* PVPK-30 * VIVASOL
0,1525		* PVPK-30 * MANITOL
0,035833		* VIVASOL * MANITOL
0,055		* PVPK-30 * VIVASOL * MANITOL

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node,

In the Diagnostics Node, Select Case Statistics from the View Menu,

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- 3) Externally Studentized Residuals to look for outliers, i.e., influential values,
- 4) Box-Cox plot for power transformations,

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon,

## LAMPIRAN BA

### HASIL UJI ANAVA WAKTU HANCUR DENGAN *DESIGN EXPERT*

Response 5 waktu hancur

ANOVA for selected factorial model

Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F	p-value	
Model	16496,1	7	2356,586	2,035851	0,1132	not significant
A-PVPK-30	4659,307	1	4659,307	4,025168	0,0620	
B-VIVASOL	932,5067	1	932,5067	0,805591	0,3827	
C-MANITOL	5691,84	1	5691,84	4,917172	0,0414	
AB	1,926667	1	1,926667	0,001664	0,9680	
AC	2376,06	1	2376,06	2,052675	0,1712	
BC	2281,5	1	2281,5	1,970985	0,1795	
ABC	552,96	1	552,96	0,477701	0,4994	
Pure Error	18520,69	16	1157,543			
Cor Total	35016,79	23				

The "Model F-value" of 2,04 implies the model is not significant relative to the noise, There is a 11,32 % chance that a "Model F-value" this large could occur due to noise,

Values of "Prob > F" less than 0,0500 indicate model terms are significant,

In this case C are significant model terms,

Values greater than 0,1000 indicate the model terms are not significant,

If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model,

Std, Dev,	34,02269	R-Squared	0,471091
Mean	100,4833	Adj R-Squared	0,239693
C,V, %	33,85904	Pred R-Squared	-0,19005
PRESS	41671,56	Adeq Precision	4,110029

A negative "Pred R-Squared" implies that the overall mean is a better predictor of your response than the current model,

"Adeq Precision" measures the signal to noise ratio, A ratio greater than 4 is desirable, Your ratio of 4,110 indicates an adequate signal, This model can be used to navigate the design space,

Factor	Coefficient Estimate	df	Standard Error	95% CI Low	95% CI High	VIF
Intercept	100,4833	1	6,944852	85,7609	115,2058	
A-PVPK-30	13,93333	1	6,944852	-0,7891	28,65576	1
B-VIVASOL	-6,23333	1	6,944852	-20,9558	8,489096	1
C-MANITOL	15,4	1	6,944852	0,677571	30,12243	1
AB	-0,28333	1	6,944852	-15,0058	14,4391	1
AC	9,95	1	6,944852	-4,77243	24,67243	1
BC	9,75	1	6,944852	-4,97243	24,47243	1
ABC	-4,8	1	6,944852	-19,5224	9,922429	1

Final Equation in Terms of Coded Factors:

$$\begin{array}{rcl}
 \text{waktu} & & \\
 \text{hancur} & = & \\
 100,4833 & & \\
 13,93333 & * & A \\
 -6,23333 & * & B \\
 15,4 & * & C \\
 -0,28333 & * & A * B \\
 9,95 & * & A * C \\
 9,75 & * & B * C \\
 -4,8 & * & A * B * C
 \end{array}$$

Final Equation in Terms of Actual Factors:

$$\begin{array}{rcl}
 \text{waktu} & & \\
 \text{hancur} & = & \\
 100,4833 & & \\
 13,93333 & * & \text{PVPK-30} \\
 -6,23333 & * & \text{VIVASOL} \\
 15,4 & * & \text{MANITOL} \\
 -0,28333 & * & \text{PVPK-30} * \text{VIVASOL} \\
 9,95 & * & \text{PVPK-30} * \text{MANITOL} \\
 9,75 & * & \text{VIVASOL} * \text{MANITOL} \\
 -4,8 & * & \text{PVPK-30} * \text{VIVASOL} * \text{MANITOL}
 \end{array}$$

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node,

In the Diagnostics Node, Select Case Statistics from the View Menu,

Proceed to Diagnostic Plots (the next icon in progression), Be sure to look at the:

- 1) Normal probability plot of the studentized residuals to check for normality of residuals,
- 2) Studentized residuals versus predicted values to check for constant error,
- 3) Externally Studentized Residuals to look for outliers, i.e., influential values,
- 4) Box-Cox plot for power transformations,

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon,

# LAMPIRAN BB

## HASIL UJI ANAVA WAKTU PEMBASAHAN DENGAN *DESIGN*

### *EXPERT*

Response 7 waktu pembasahan

ANOVA for selected factorial model

Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	p-value Prob > F	
Model	26054,37	7	3722,053	11,28556	< 0,0001	significant
A-PVPK-30	11353,5	1	11353,5	34,42471	< 0,0001	
B-VIVASOL	5642,667	1	5642,667	17,10901	0,0008	
C-MANITOL	3285,36	1	3285,36	9,961472	0,0061	
AB	2234,94	1	2234,94	6,776516	0,0192	
AC	3446,407	1	3446,407	10,44978	0,0052	
BC	0,24	1	0,24	0,000728	0,9788	
ABC	91,26	1	91,26	0,276708	0,6061	
Pure Error	5276,907	16	329,8067			
Cor Total	31331,28	23				

The Model F-value of 11,29 implies the model is significant, There is only a 0,01% chance that a "Model F-Value" this large could occur due to noise,

Values of "Prob > F" less than 0,0500 indicate model terms are significant,

In this case A, B, C, AB, AC are significant model terms,

Values greater than 0,1000 indicate the model terms are not significant,

If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model,

Std, Dev,	18,16058	R-Squared	0,831577
Mean	72,8	Adj R-Squared	0,757892
C, V, %	24,94585	Pred R-Squared	0,621048
PRESS	11873,04	Adeq Precision	9,677302

The "Pred R-Squared" of 0,6210 is in reasonable agreement with the "Adj R-Squared" of 0,7579,

"Adeq Precision" measures the signal to noise ratio, A ratio greater than 4 is desirable, Your ratio of 9,677 indicates an adequate signal, This model can be used to navigate the design space,

Factor	Coefficient		Standard Error	95% CI		VIF
	Estimate	df		Low	High	
Intercept	72,8	1	3,707013	64,94148	80,65852	
A-PVPK-30	21,75	1	3,707013	13,89148	29,60852	1
B-VIVASOL	-15,3333	1	3,707013	-23,1918	-7,47482	1
C-MANITOL	11,7	1	3,707013	3,841484	19,55852	1
AB	-9,65	1	3,707013	-17,5085	-1,79148	1
AC	11,98333	1	3,707013	4,124817	19,84185	1
BC	0,1	1	3,707013	-7,75852	7,958516	1
ABC	-1,95	1	3,707013	-9,80852	5,908516	1

Final Equation in Terms of Coded Factors:

$$\begin{aligned} \text{waktu pembahasan} &= \\ &72,8 \\ &+ 21,75 * A \\ &- 15,3333 * B \\ &+ 11,7 * C \\ &- 9,65 * A * B \\ &+ 11,98333 * A * C \\ &+ 0,1 * B * C \\ &- 1,95 * A * B * C \end{aligned}$$

Final Equation in Terms of Actual Factors:

$$\begin{aligned} \text{waktu pembahasan} &= \\ &72,8 \\ &+ 21,75 * \text{PVPK-30} \\ &- 15,3333 * \text{VIVASOL} \\ &+ 11,7 * \text{MANITOL} \\ &- 9,65 * \text{PVPK-30} * \text{VIVASOL} \\ &+ 11,98333 * \text{PVPK-30} * \text{MANITOL} \\ &+ 0,1 * \text{VIVASOL} * \text{MANITOL} \\ &- 1,95 * \text{PVPK-30} * \text{VIVASOL} * \text{MANITOL} \end{aligned}$$

The Diagnostics Case Statistics Report has been moved to the Diagnostics Node,  
In the Diagnostics Node, Select Case Statistics from the View Menu,

Proceed to Diagnostic Plots (the next icon in progression). Be sure to look at the:

- 1) Normal probability plot of the studentized residuals to check for normality of residuals,
- 2) Studentized residuals versus predicted values to check for constant error,
- 3) Externally Studentized Residuals to look for outliers, i.e., influential values,
- 4) Box-Cox plot for power transformations,

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon,

# LAMPIRAN BC

## HASIL UJI ANAVA RASIO ABSORPSI AIR DENGAN *DESIGN*

### *EXPERT*

Response 6 ratio absorpsi

ANOVA for selected factorial model

Analysis of variance table [Partial sum of squares - Type III]

Source	Sum of Squares	df	Mean Square	F Value	p-value Prob > F	
Model	1117,306	7	159,6152	3,498718	0,0180	significant
A-PVPK-30	361,1271	1	361,1271	7,9158	0,0125	
B-VIVASOL	665,4012	1	665,4012	14,5854	0,0015	
C-MANITOL	9,844485	1	9,844485	0,215788	0,6485	
AB	14,51282	1	14,51282	0,318117	0,5806	
AC	42,02642	1	42,02642	0,921207	0,3514	
BC	16,9428	1	16,9428	0,371381	0,5508	
ABC	7,451547	1	7,451547	0,163336	0,6915	
Pure Error	729,9369	16	45,62106			
Cor Total	1847,243	23				

The Model F-value of 3,50 implies the model is significant, There is only a 1,80% chance that a "Model F-Value" this large could occur due to noise,

Values of "Prob > F" less than 0,0500 indicate model terms are significant,

In this case A, B are significant model terms,

Values greater than 0,1000 indicate the model terms are not significant,

If there are many insignificant model terms (not counting those required to support hierarchy), model reduction may improve your model,

Std, Dev,	6,754336	R-Squared	0,604851
Mean	35,82196	Adj R-Squared	0,431973
C, V, %	18,8553	Pred R-Squared	0,110914
PRESS	1642,358	Adeq Precision	5,799543

The "Pred R-Squared" of 0,1109 is not as close to the "Adj R-Squared" of 0,4320 as one might normally expect, This may indicate a large block effect or a possible problem with your model

and/or data, Things to consider are model reduction, response tranformation, outliers, etc,

"Adeq Precision" measures the signal to noise ratio, A ratio greater than 4 is desirable, Your ratio of 5,800 indicates an adequate signal, This model can be used to navigate the design space,

Factor	Coefficient		Standard Error	95% CI		VIF
	Estimate	df		Low	High	
Intercept	35,82196	1	1,378723	32,8992	38,74472	
A-PVPK-30	-3,87904	1	1,378723	-6,8018	-0,95628	1
B-VIVASOL	5,265458	1	1,378723	2,342696	8,188221	1
C-MANITOL	-0,64046	1	1,378723	-3,56322	2,282304	1
AB	0,777625	1	1,378723	-2,14514	3,700387	1
AC	-1,32329	1	1,378723	-4,24605	1,599471	1
BC	0,840208	1	1,378723	-2,08255	3,762971	1
ABC	0,557208	1	1,378723	-2,36555	3,479971	1

Final Equation in Terms of Coded Factors:

$$\begin{aligned} \text{ratio absorpsi} = & 35,82196 \\ & -3,87904 * A \\ & 5,265458 * B \\ & -0,64046 * C \\ & 0,777625 * A * B \\ & -1,32329 * A * C \\ & 0,840208 * B * C \\ & 0,557208 * A * B * C \end{aligned}$$

Final Equation in Terms of Actual Factors:

$$\begin{aligned} \text{ratio absorpsi} = & 35,82196 \\ & -3,87904 * \text{PVPK-30} \\ & 5,265458 * \text{VIVASOL} \\ & -0,64046 * \text{MANITOL} \\ & 0,777625 * \text{PVPK-30} * \text{VIVASOL} \\ & -1,32329 * \text{PVPK-30} * \text{MANITOL} \\ & 0,840208 * \text{VIVASOL} * \text{MANITOL} \\ & 0,557208 * \text{PVPK-30} * \text{VIVASOL} * \text{MANITOL} \end{aligned}$$

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- 4) Box-Cox plot for power transformations,

If all the model statistics and diagnostic plots are OK, finish up with the Model Graphs icon,